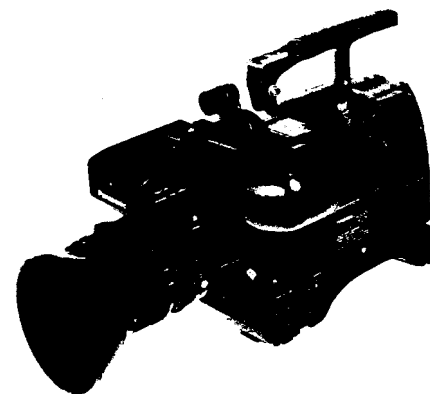


Operating Instructions

Colour Video Camera
AW-F575E

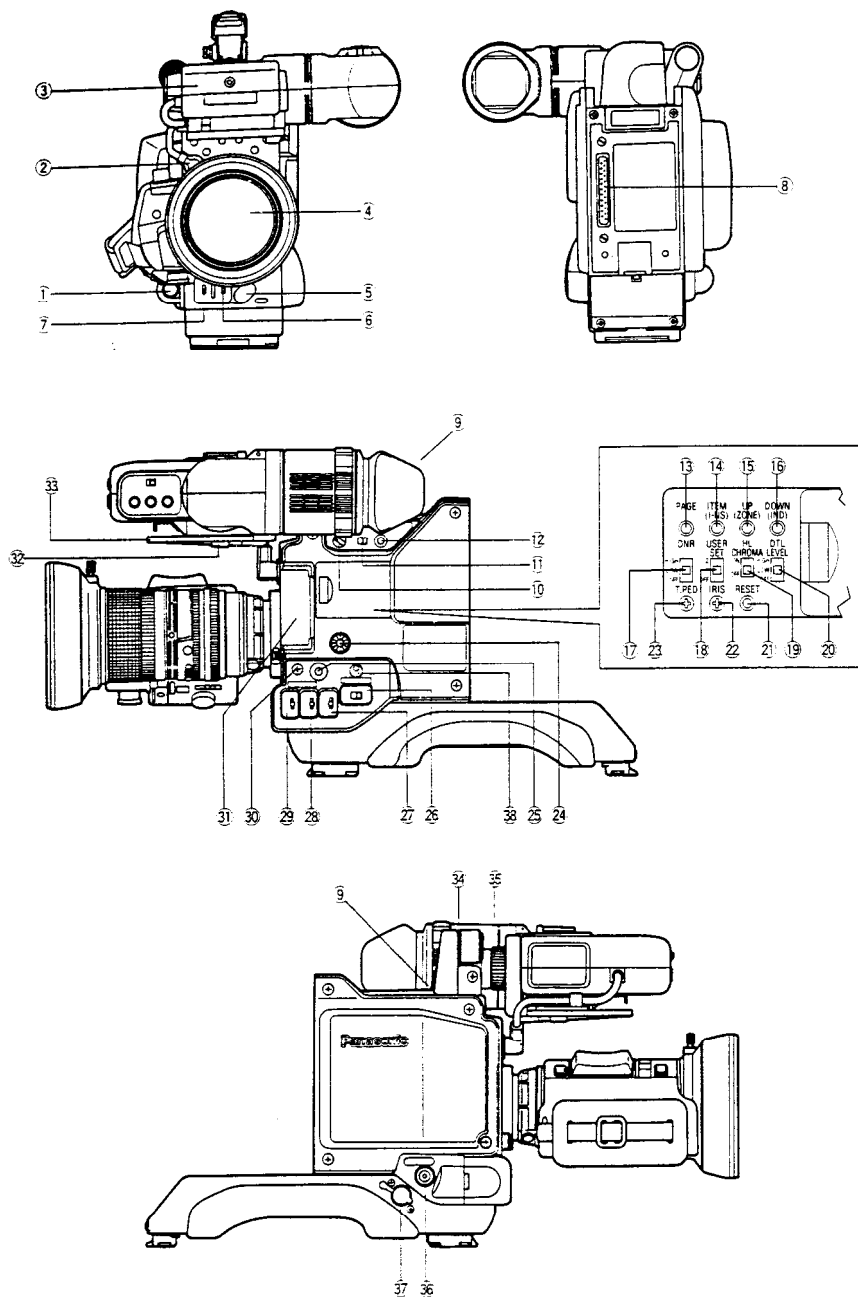


Panasonic

Before attempting to connect or operate this product, please read these instructions completely

Electric Industrial Co., Ltd.
PO Box 288, Osaka 530-8691, Japan

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



CAMERA HEAD AW-F575HE

1. Lens Connector (12-pin) (LENS)

Connect the lens cable to this connector

2. Viewfinder Connector (12-pin) (VIEWFINDER)

Connect the viewfinder cable from the 15" or 5" Electronic Viewfinder to this connector

Note: When connecting the 5" Electronic Viewfinder WV-VF65B to this connector, use the Viewfinder Conversion Cable supplied with the WV-VF65B. Refer to page 28 for details.

3. 1.5" Electronic Viewfinder

This small 1.5" (1-3/8" actual image size) monitor shows exactly the image picked up by the lens. The viewfinder can be tilted 30° from horizontal and it is adjustable up and down by approximately 20 mm. (13/16"). Further the viewfinder may be slid laterally by up to 45 mm (1-3/4") and 20 mm (3/4") back and forth. Refer to page 18 for details.

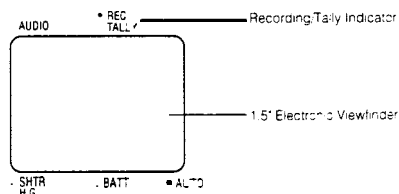
4. Auto Iris Servo Control Zoom Lens

This is a high-quality zoom lens offering automatic as well as manual iris control and servo control zoom. The lens features a bayonet mount F1.4 Maximum aperture.

Picture size may be magnified by up to 14 times through use of the zoom feature. Simply rotate the macro ring for close-up or wide angle recording. Macro shooting is possible of objects up to 5 cm (15/16") from the lens surface. Refer to page 16 for details.

5. VTR Start/Stop Button (VTR) (parallel operation)

This button is used to change the recorder mode from pause (Recording Pause) to recording and functions in the same way as the VTR Start/Stop Button (92) on the lens. Press once to start recording. While recording, the Tally Indicator in the viewfinder and the Recording/Tally indicator (9) light, and the Tally Light (101) on the viewfinder also lights.



When this button is pressed once more the recorder is set to the Pause mode (Recording Pause) and the Recording/Tally Indicator and Tally Light will go off.

6. Auto White/Auto Black Set Switch (AUTO W/B BAL AWC/HOLD/ABC)

This switch sets the white balance and black balance automatically as follows

AWC: This position is used for setting the white balance when the White Balance Selection Switch (28) is set to the AWC A or AWC B position. White balance adjustment is required when 'AWC A NG' or 'AWC B NG' starts blinking in the viewfinder or when the Auto Warning Indicator in the viewfinder lights.

Two white balance settings for two light sources, such as indoor and outdoor can be retained in the memory. In this case both the AWC A and AWC B positions are used.

HOLD: In this position, the white and black balances set at the AWC or ABC position can be held fixed if so desired for at least one year.

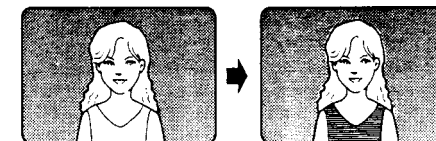
ABC: This position is used for setting the black balance. Black balance adjustment is required when 'ABC NG' starts blinking in the viewfinder or when the Auto Warning Indicator in the viewfinder lights.

Note: The picture will flash in the viewfinder while the black balance is being set. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.

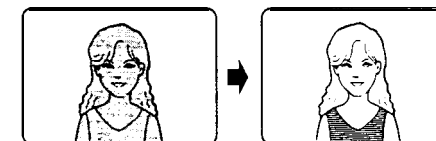
7. Lens Iris Selection Switch

(LENS IRIS: 1/2 OPEN/NOR/1/2 CLOSE)

This switch can be used to set the lens iris opening to compensate for unusual lighting conditions if the object is brightly lit against a dark background, set this switch to the 1/2 CLOSE position. This will close the lens iris by a 1/2 F stop.



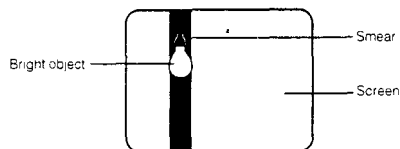
If the object is relatively dark and the background is bright, set the switch to the 1/2 OPEN position. This will open the lens iris by a 1/2 F stop.



At the normal (NOR) position, the lens is operating with normal lens iris openings

Notes:

- 1 If this switch is used, be sure to return it to the detent NOR position after use.
- 2 If the camera is aimed at an extremely bright object, such as the sun or a lamp, vertical bars (smear) may appear in the picture. This is a peculiar phenomenon of the CCD and is quite normal. Try as much as possible to avoid shooting scenes with extremely bright light, as this could also be harmful to the camera.



3. Set this switch to the NOR position when the camera is used together with the Remote Control Unit (RCU)

8. 68-pin Multi Connector

When mounting the dockable VCR or the AW-AD 500AE Camera Adaptor, engage the 68-pin connectors on the Camera Head and VCR/VTR Adaptor, or Camera Adaptor.

9. Recording/Tally Indicator (REC TALLY)

This indicator changes to one of these three colours, depending on the camera mode.

This indicator lights red when the camera is set to the recording mode (through the VTR Start/Stop Button), and informs that the scene is being recorded. The Tally Indicator also lights when the camera is in full system operation together with the Remote Control Unit and Special Effects Generator. In case a tape is not loaded or the tape end is reached, or if the servo mechanism is working improperly, this indicator will start blinking to warn the operator of such faults. This Indicator lights green when the camera is set to the shutter on mode. This indicator lights yellow when the camera is set to the recording mode and the shutter on mode is selected.

Note: If a portable VTR is not connected to the camera, the Recording/Tally Indicator will not light.

10. Scene File Selection Switch (SCENE FILE, USER A/B/1/2/3)

This switch is used to select the most suitable camera conditions for various scenes to obtain the best picture

- 1: Studio Mode
This position is suitable for shooting in normal condition
Note: This level is adjusted under the condition of 2000 lux, 3200° K at F8
- 2: ENG Mode
This position is suitable for shooting under fluorescent, halogen or outdoor lighting
Note: The selection of fluorescent, halogen or outdoor lighting can be selected on the Main Menu.
- 3: Low Light Mode
This position is suitable for low illumination level shooting
USER A/B: The camera conditions can be set to the desired level by the user

11. Electronic Shutter On/Off Switch (SHUTTER, ON/OFF)

This switch is used to select the Electronic Shutter On/Off mode.

When setting this switch to the ON position, the shutter speed is in a speed set by the menu

Notes:

- 1 In the electronic shutter operation, the light of the object/scene is taken in a short period of time. Therefore, higher shutter speeds require greater scene illumination.

Shutter Speed	Minimum Illumination (at F8)
1/120 sec.	1000 lux
1/250 sec.	2000 lux
1/500 sec.	4000 lux
1/1000 sec.	8000 lux
1/2000 sec.	16000 lux
1/4000 sec.	32000 lux
1/10000 sec.	80000 lux

2. In the electronic shutter operation, the vertical smear of CCD is emphasized since greater light intensity is required as mentioned above. Avoid shooting scenes which contain extremely bright objects. Refer to PECULIAR PHENOMENA OF THE CCD on page 59
- 3 The white balance may be disturbed if the 1/1000 - 1/10000 sec. electronic shutter is operated while the camera is in the +18 dB high gain condition

12. Back Light Compensation Switch (BACK LIGHT COMP ON/OFF)

When backlight affects the picture, turn on this switch for a clear picture.

Note: Be sure to set the Auto Iris Button of the lens to the A (Auto) position or activate the Electronic Light Control

13. Page Switch (PAGE)

By repeated pressing of this switch, the Initial Set and User Set menus can be changed in the viewfinder or on the monitor.

14. Item / Noise Suppress Switch (ITEM/NS)

When the User Set Switch is set to the position 1 or 2, this switch is used to move the cursor to the various items in the menu.

When the User Set Switch is set to the OFF position, the Noise Suppress in the menu can be selected by this switch.

Note: Noise of the I axis on the vector can be suppressed when the Detail Level Selection Switch (20) is set to the HIGH or LOW position

15. Up/Zone Switch (UP/ZONE)

When the User Set Switch is set to the position 1 or 2, the On mode of an item can be selected and/or the level of an item can be increased in the menu by this switch.

When the User Set Switch is set to the OFF position the display on or off of the centre marker or safety zone into the viewfinder can be selected by this switch

Notes:

- 1 The marker shows the electronic centre of the picture and might not coincide with the optical centre of the picture
2. The center marker on/off and type of safety zone can be set by the Sub Menu

16. Down/Level Indicator Switch (DOWN/IND)

When the User Set Switch is set to the position 1 or 2, the Off mode of an item can be selected and/or the level of an item can be decreased in the menu

When the User Set Switch is set to the OFF position, the display On/Off of the zebra pattern into the viewfinder can be controlled by pressing this switch. Picture images exceeding a specified level (95 IRE) will produce a zebra pattern barely visible

Note: The zebra level can be set by the Sub Menu

17. Clean DNR (Digital Noise Reduction) Selection Switch (DNR OFF, LOW, HIGH)

This switch is used to improve the S/N ratio on the screen

19. User Set Switch (USER SET 1, 2, OFF)

By setting this switch to the position 1, a Menu selected by the Scene File Switch is displayed in the viewfinder and menu setting is available.

By setting this switch to the position 2, a Menu selected by the Scene File Selection Switch is displayed in the viewfinder and the monitor.

To display the normal picture in the viewfinder or on the monitor set this switch to the OFF position (The menu is kept under the last condition)

Note: To select the USER A or USER B Menu, set the Scene File Selection Switch (10) to the USER position while pressing the Page Switch (13) or Check Button (25)
When setting the Scene File Selection Switch (10) to the USER position without the Page Switch or Check Button, the last selected menu of USER A or B is displayed.

19. High Light Chroma Switch (HL CHROMA ON/OFF)

This Switch is used to obtain the good picture in the high brightness condition.

By setting this switch to the ON position. The low or high level can be selected in the Sub Menu or User Set menu

Note: When the HL CHROMA is set to the HIGH position, the object in the high brightness condition might be coloured.

20. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture

Note: When over modulation has occurred with recording or playing back the VTR, set this switch to LOW position.

21. Recording Time Reset Button (RESET)

The accumulated recording time is displayed in the viewfinder under REC TIME while the Check Button (25) is pressed. The time can be reset to '0 MIN' by pressing either this button or the one on the AG-7450A VTR. Thus total recording time can easily be checked by first pressing this button at the outset of a new recording and then checking REC TIME at the end of the recording by pressing the check button

Note: The REC TIME displayed in the viewfinder and the one displayed on the AG-7450A might be different.

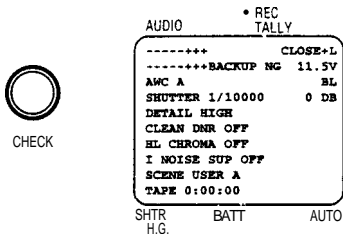
22. Lens Iris Control (IRIS)

The auto Iris level can be adjusted by this control. When replacing the lens, check the output signal of the camera and make any necessary adjustment with this control if required

23. **Total pedestal Level Control (T. PED)**
This control is used for adjusting the pedestal level of the video signal (luminance) When attempting to match the pedestal level of two or more cameras in a system, use a waveform monitor or oscilloscope for precise adjustment.

24. **Audio Level Control (AUDIO)**
Only when the MII format VTR AU-45H is connected, the microphone level can be adjusted

25. **Check Button (CHECK)**
The operating conditions of the camera can be displayed in the viewfinder by keeping this button pressed Refer to page 67 for details



26. **Power Switch (DC POWER, OFF/SAVE/ON)**
This switch selects the operating mode of the camera Refer to OPERATING PROCEDURE FOR CAMERA RECORDER APPLICATION on page 45 for details

27. **Colour Bar/Night Eye/Camera Selection Switch (BAR/N.E/CAMERA)**
BAR: Set this position to display the colour bars
N.E.: Set this position to shoot the object in the dark scene (Night Eye mode).
The High Gain Selection Switch (29) can not work in this mode
CAMERA: By selecting this position, gain-up level can be set by the High Gain Selection Switch (29)

26. **White Balance Selection Switch (AUTO/ATW ATW/A/B)**
This switch is used to white balance mode as follows
ATW: The white balance can be adjusted automatically
A: The white balance can be set automatically by pressing the Auto White/Auto Black Set Switch (6) upwards. The setting is stored in memory A
B: Similar to A. but the setting is stored in memory B

29. **High Gain Selection Switch (GAIN LOW/MID/HIGH)**
This switch is used to select the gain level.
The gain level can be set in the Sub Menu with the combination shown below.

HIGH	MID	LOW
18dB	9 dB	0 dB
24 dB	12dB	0 dB
12dB	6dB	0 dB
6 dB	3dB	0 dB
12dB	0 dB	-6 dB
6dB	0dB	-6 dB

Be sure to use the Operation Seat for AW-F575E (provided with WV-RC700A) when operating this camera in combination with the WV-RC700A Remote Control Unit

30. **Lens Hold Ring/Knob**
Turn this ring/knob clockwise to secure the lens to the camera

31. **Filter Selection Wheel**
This wheel, which has four positions, controls two built-in colour temperature conversion filters and one ND filter.
(1) 3200K - indoor light (tungsten, halogen, quartz lamps)
(2) 5600K +6 25% ND daylight (sunny)
(3) 5600K daylight (cloudy/rainy)
(4) Close
Select the position according to the light source (see page 56)
Caution: if the incorrect filter is selected, the Automatic White Balance Setting may not be successfully completed

32. **Viewfinder Lock Lever**
The viewfinder's position is locked or released through the use of this lever When the lever is released, the viewfinder can be slid approximately 45 mm (1-3/4") laterally and 20 mm (13/16") back and forth. Be sure to lock the lever after having adjusted the viewfinder position

33. **Viewfinder Mounting Base**
The 1.5" Electronic Viewfinder, WV-VF42. is mounted on the camera by first installing this base onto the camera. Refer to page 34 for detailed mounting instructions

34. **Microphone**
This Microphone is a nondirectional condenser microphone. When sound from the surroundings is not desired, use the optional Microphone WM-L30 and Microphone Holder WV-MH500

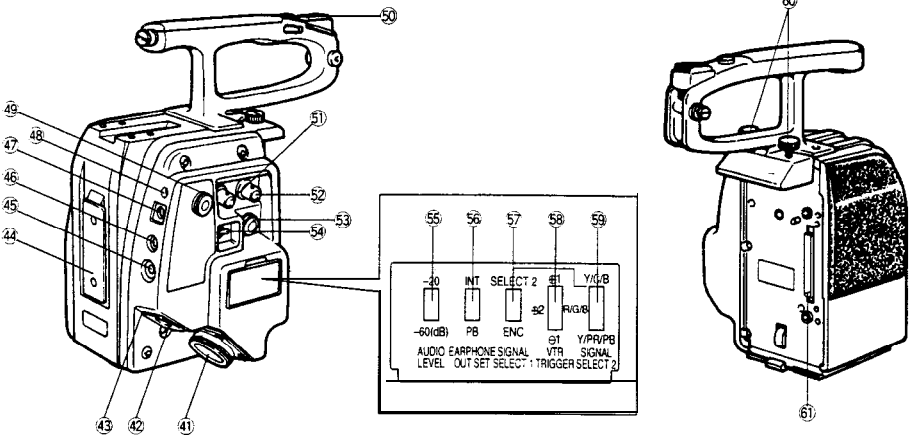
35. **Viewfinder Height Adjustment Knob (UP/DOWN)**
The height of the viewfinder can be adjusted by first loosening this knob, adjusting the viewfinder to the proper height, and then tightening this knob Adjustment of up to 20 mm (13/16") is possible

36. **Monitor Output Connector (MONITOR)**
A composite video signal for monitoring is provided at this connector
Note: This output signal might differ slightly from the output signal of the Video Output Connector (52)

37. **Remote Control Box Connector (RCB)**
This connector is provided for the Remote Control Box (RCB) connection
Note: When connecting the BNC Cable to the Monitor Output Connector (36), the video signal from this connector through the Remote Control Box can not be output.

36. **Power Indicator**
This Indicator lights red when the camera is operating When the camera is in the standby mode, the indicator lights green.

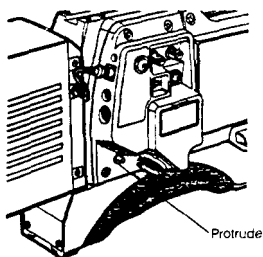
CAMERA ADAPTOR AW-ADS00AE



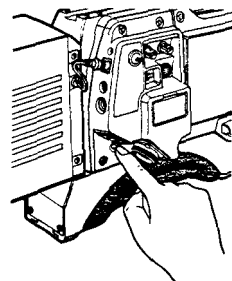
41. **VTR/RCU Connector (26-pin) (VTR/RCU)**
When using the camera together with a Panasonic portable colour VTR, the specified VTR cable should be connected between the camera and VTR. This Connector is also used for connection of the 26-pin studio cable from the Remote Control Unit (RCU) for comprehensive system operation. When connecting the 26-pin studio cable to this connector, the camera is automatically set to the RCU operation mode
3/4" U-vision portable VTR (14-pin)
WV-CA26A/14 (26P-14P cable)

III portable VTR (26-pin)
WV-CA26A/26 (26P-26P cable)
26 pin studio cable (RCU cable)
WV-CA26U15
WV-CA26U30
WV-CA26U100

42. **Circuit Protector (BREAKER)**
When an excessive current flows into the camera due to a short circuit or some other reason, the red button of this circuit protector protrudes to cut off the circuit.



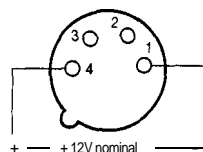
After solving the problem, press the red button again to recover the circuit



CAUTION: Refer servicing to qualified service personnel to solve the problem

43. External DC Input Connector (XLR, 4-pin) (EXT DC)

This connector accepts the power cable from an external DC source supplying nominal power of 12V. 2A (a belt type battery or car battery for example). This connector also accepts the power cable from an AC adaptor. For driving the studio configuration, a 12V DC. 2.5A power source is required



44. Battery Pack Mounting Angle

Mount the AC Adaptor/Charger WV-PS34 on the camera by sliding it down along this mounting angle

45. Intercom Jack (M6) (INTERCOM)

This jack is used for communication between the camera operator and operators of the RCU and Special Effect Generator in a system

46. Earphone Jack (M3) (EARPHONE)

When an earphone is connected, the sound picked up through the microphone or played back audio from a 3/4" U-vision recorder. 26-pin MII format portable VTR or 14-pin S-VHS portable VTR connected to the camera, can be monitored.

47. Battery Connector (BATTERY)

Connect the cord from the Battery Pack to this connector

48. Recording/Tally Indicator (red) (REC TALLY)

This indicator lights when the VTR is set to the recording mode (through the VTR Start/Stop button), and informs the person concerned of scenes being recorded

The Tally Indicator also lights when the camera is in full system operation together with the Remote Control Unit and Special Effects Generator

In case a tape is not loaded or the tape end is reached, or if the servo mechanism is working improperly, this indicator will start blinking to warn the operator of such faults

Note: if a portable VTR is not connected to the camera, the Recording/Tally indicator will not light

49. Earphone/Intercom Level Control (LEVEL)

Use this control to adjust the volume level in the earphone connected to the Earphone Jack (46) or the headset connected to the Intercom Jack (45)

50. Accessory Shoe

51. Gen-lock Input Connector (BNC) (GEN-LOCK)

The colour video signal of the camera is automatically synchronized to the gen-lock signal (composite or black burst) which is supplied to this connector. The gen-lock signal is used for system reference, such as when using a Special Effects Generator

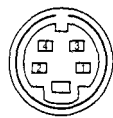
Caution: If the gen-lock signal is jittery (like that obtained from VTR playback), the camera may not be able to synchronize properly

52. Video Output Connector (BNC) (VIDEO OUT)

A composite video signal is provided at this connector.

53. S-VHS Video Output Connector (S-VIDEO OUT)

The luminance (Y) and chroma (C) signals for S-VHS VTR or monitor are provided at this connector.



S-VIDEO OUT (female)

No.	Contents
1	Y Ground
2	C Ground
3	Y Signal Output
4	C Signal Output

54. Power Selection Switch (POWER SELECT. BATT/EXT DC-VTR/RCU)

By using this switch the desired power source connected to the camera can be selected

BATT/EXT DC: This position is used for power supply from the battery pack, and external DC source or through an AC adaptor

VTR/RCU: This position is used when power is to be supplied through the 26-pin connector from the VTR or the Remote Control Unit (RCU).

55. Audio Level Selection Switch

(AUDIO LEVEL -20/-60 dB)

Two audio output levels to the VTR can be selected -20 dB or -60 dB. The camera has been preset to -20 dB at the factory

56. Earphone Selection Switch (EARPHONE OUT SEL, INT/PB)

This switch selects the audio signal from the Earphone jack (46) to be monitored

INT: The sound picked up by the microphone can be monitored

PB: The played back audio from a 3/4" U-vision recorder, 26-pin MII format portable VTR or 14-pin S-VHS portable VTR, obtained through the VTR/RCU Connector of this adaptor can be monitored

Note: The camera has been preset to the INT position at the factory

57. VTR Video Output Selection Switch 1 (SIGNAL SELECT 1)

This switch selects the video output signal supplied to the VTR/RCU connector (41)

ENC: A composite video signal is supplied for 1/2 VHS and 3/4" U-VISION portable VTRs.

SELECT 2: The signal selected by the VTR Video Output Selection Switch (59) is output from the VTR/RCU Connector (41).

Note: The camera has been preset to the ENC position at the factory

58. VTR Compatibility Switch (+1/+2-1)

Set this switch according to the VTR type connected to the camera

+1: For 1/2" VHS VTRs.

+2: For 3/4" U-VISION VTRs, connected to the camera, S-VHS VTRs and MII portable VTRs

-1: If a VTR of other manufacture is used, or if the VTR pauses when the tape should be running and vice versa, this switch should be set to this position.

Notes:

1 The switch has been preset to the +1 position at the factory

2 Some VTRs may not operate properly when connected to this camera, even though the setting of this switch is changed. Please consult your dealer for further information

59. VTR Video Output Selection Switch 2 (SELECT 2)

When the VTR Video Output Selection Switch 1 is set to the SELECT 2 Position, this switch should be set according to the VTR type.

YICIB: The chrominance (C) and luminance (Y) signals are supplied from the R, G and B Output Connectors (145) of the RCU and from the VTR/RCU Connector (41) for S-VHS format VTR.

WG/B: The R, G and B signals are supplied from the R, G and B Output Connector (145) of the RCU and from the VTR/RCU Connector (41).

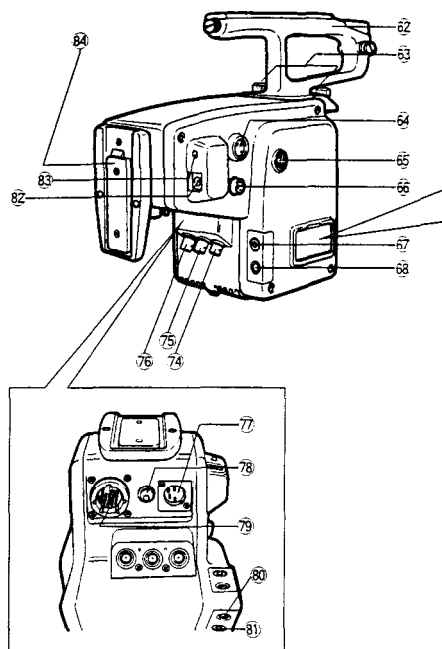
YBPIPR: The colour difference (R-Y & B-Y) signals and luminance (Y) signal are supplied from the VTR/RCU Connector (41) and the R, G and B Output Connectors (145) on the Remote Control Unit for MII and Betacam format VTRs.

60. Camera Adaptor Holding Screws/Knobs.

These screws/knobs are used to fix the camera adaptor to the Camera head

61. 68-pin Multi Connector

When mounting the camera adaptor, engage the 68 pin connectors on the Camera and the Camera adaptor



62. Camera Handle

63. Camera Adaptor Holding Screw/Knob

The camera adaptor can be removed from the camera after loosening two knobs on top of the adaptor and then pressing the release button underneath of the camera while pulling on rear of camera adaptor

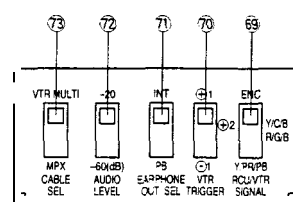
64. VTR Start/Stop Button (VTR) (parallel operation)

This button is used to change the recorder mode from pause (Recording Pause) to recording and functions in the same way as the VTR Start/Stop Button on the lens. Press once to start recording. While recording, the Tally Indicator in the viewfinder lights and the Tally Light on the viewfinder also lights

When the button is pressed once more, the recorder is set to the Pause mode (Recording Pause), and the Recording/Tally Indicator and Tally Light will go off

65. Intercom/Earphone Level Control (INCOM EARPPHONE)

Use this control to freely adjust the volume level in the earphone connected to the Earphone Jack (68) or the headset connected to the Intercom Jack (67)

**66. S-Video Output Connector (S-VIDEO OUT)**

The luminance (Y) and chroma (C) signals for S-VHS VTR or monitor are provided at this connector

67. Intercom Jack (M6) (INCOM)

This jack is used for communication between the camera operator and operators of the Remote Control Unit (RCU) and Special Effect Generator in the system.

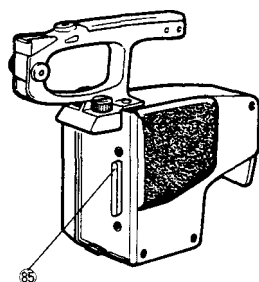
68. Earphone Jack (M3) (EARPHONE)

When an earphone is connected, the sound picked up by the microphone or the played back audio from a 3/4" U-VISION recorder, connected to the camera through the VTR 14-pin, camera connector, can be monitored. Selection of the audio source is enabled by the Earphone Out Selection Switch (71)

69. RCU/VTR Signal Selection Switch (RCU/VTR SIGNAL ENC, Y/C/B, R/G/B, Y/PB/PB)

This switch selects the video Output signal supplied at the VTR/RCU Connector (79) on the adaptor and the Red, Green and Blue Output Connectors on the Remote Control Unit (RCU). The switch has been set to the R/G/B position at the factory

ENC: The composite Output signal for the VTR, such as 1/2 VHS or 3/4" U-Matic, is supplied



Y/C/B: The chrominance (C) and luminance (Y) signals are supplied from the R, G and B Output Connectors for S-VHS format VTR.

R/G/B: The R, G and B signals are supplied from the R, G and B Output Connectors.

Y/PB/PR: The colour difference (R-Y & B-Y) signals and luminance (Y) signal are supplied from the VTR/RCU Connector (79) and the R, G and B Output Connectors on the Remote Control Unit for MII and Betacam format VTRs

70. VTR Compatibility Switch (+1/+2/-1)

Set this switch according to the VTR which is connected to the camera.

+1: For 1/2" VHS VTRs

+2: For 3/4" U-vision VTRs, connected to the camera using a 14-pin connector, S-VHS VTRs and MII portable VTRs

-1: If a VTR of other manufacture is used, and if this VTR pauses when the tape should be running and viceversa, this switch should be set to this position

Notes:

- 1 The switch has been preset to the +1 position at the factory
- 2 Some VTRs may not operate properly when connected to this camera, even though the setting of this switch is changed. Please consult your dealer for further information

71. Earphone Out Selection Switch (INT/PB)

This switch selects the audio signal from the Earphone Jack (68) to be monitored.

INT: The sound picked up by the microphone can be monitored.

PB: The played back audio can be monitored

Note: The camera has been preset to the INT position at the factory

72. Audio Level Selection Switch (AUDIO LEVEL -20/-60 dB)

Two audio output levels to the VTR can be selected: -20 dB or -60 dB

The camera has been preset to -20 dB at the factory. When using this adaptor with WVRC700A, set this switch to the -20 dB position

73. Cable Selection Switch (VTR MULTIPLEX)

This switch is used to select either the multicable VTR/RCU cable or the single coaxial multiplex cable. When using the multi-cable in the VTR or Remote Control Unit (RCU), set this switch to VTR MULTI position. In case of the multiplex or VP multiplex operation using a coaxial cable, set this switch to MPX position

Note: Video Power (VP) Multiplex system is multiplex signal and power are supplied using a single coaxial cable

74. Video Output Connector (BNC) (VIDEO OUT)

A composite video signal is provided at this connector

75. Gen-lock Input Connector (ENC) (GEN-LOCK)

The colour video signal of the camera is automatically synchronized to the gen-lock signal (composite or black burst) which is supplied to this connector. The gen-lock signal is used for system reference, such as when using a Special Effects Generator

Caution: If the gen-lock signal is jittery (such as when obtained from VTR playback), the camera may not be able to synchronize properly.

76. Multiplex Signal Input Connector (MPX)

Communications between the camera side and the Remote Control Unit (RCU) are available through a Single coaxial cable by using this Connector as the composite signal, gen-lock signal, control signal and Intercom/audio signal are multiplexed, and the composite signal is output from the Remote Control Unit (RCU)

77. External DC Input Connector (XLR, 4-pin) (EXT DC)

This connector accepts the power cable from an external DC source supplying nominal power of 12V. 2A (a belt type battery or car battery for example). This connector also accepts the power cable from an AC adaptor. For powering the studio configuration, a 12V DC, 2.5A power source is required.

Cautions:

Use only with a 12V DC power source with a Class 2 rating. Do not use with an external storage battery unless provided with an 8A rated fuse, located within 5 inches of the battery connecting means.

An external DC source supplied to this connector gets the highest priority, if it is selected before the battery connector or Multicore/VTR DC source

78. Circuit Protector (BREAKER)

When excessive current flows into the camera due to some fault, the red button of this circuit protector protrudes to cut off the circuit power

After solving the problem, press the red button again to reset the circuit protector.

Caution: Refer servicing to qualified service personnel to solve the problem.

79. VTR/RCU Connector (26pin) (VTR/RCU)

When using the camera together with a Panasonic portable colour VTR, the specified VTR Cable should be connected between the camera and VTR. This connector is also used for connection with the 26-pin studio cable from the Remote Control Unit (RCU) for comprehensive system operation. When connecting the 26-pin studio cable to this connector, the camera is automatically set to the Remote Control Unit (RCU) operation mode

3/4" U-vision portable VTR (14-pin)

WVCA26A14 (26P-14P cable)

III portable VTR (26-pin)

WV-CA26A26 (26P-26P cable)

26 pin Studio Cable (RCU Cable)

WV-CA26U15

WV-CA26U30

WV-CA26U100

80. Lens Connector

This connector is used to connect the lens cable for zoom, focus or servo control.

81. Control connector

This connector is used to connect the optional Pan/Tilt Control Cable WV-CA10U25

92. Battery Connector (BATTERY)

Connect the cord from the Battery Pack to this connector

93. Recording/Tally Indicator (red) (REC TALLY)

This indicator lights when the VTR is set to the recording mode (through the VTR Start/Stop Button) and informs the person concerned of scenes being

recorded. The Tally indicator also lights when the camera is in full system operation together with the Remote Control Unit and Special Effects Generator in case a tape is not loaded or the tape end is reached, or if the servo mechanism is working improperly, this indicator will start blinking to warn the operator of such faults.

Note: If a portable VTR is not connected to the camera, the Recording/Tally indicator will not light.

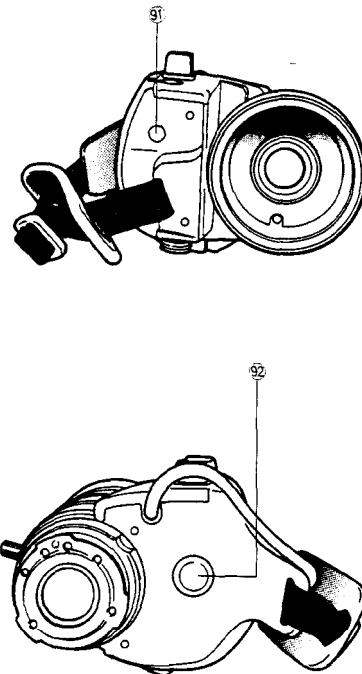
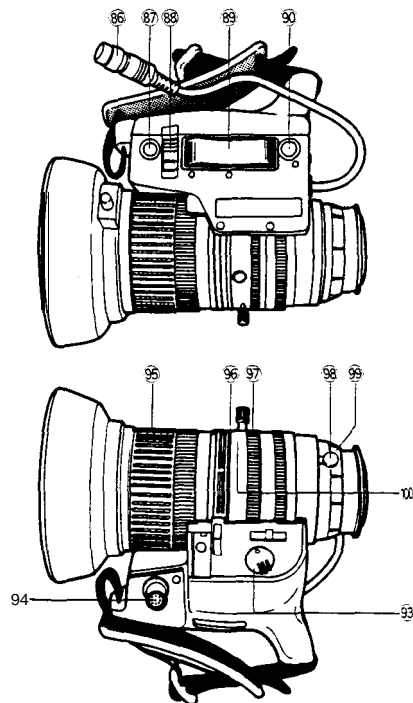
84. Battery Pack Mounting Angle

Mount the AC Adaptor/Charger WV-PS34 or Power Separator WV-PS700 on the camera by sliding it down along this mounting angle

85. 66-pin Multi Connector

When mounting this adaptor engage the 66-pin connectors on the camera and this connector

14X SERVO CONTROL ZOOM LENS AW-LZ14ST73



86. Lens Cable with 12-pin Connector

This cable supplies power to the servo control zoom motor and the automatic iris control device.

The cable should be connected to the Lens Connector (1) on the camera.

87. Auto Iris Button (IRIS)

When this button is pressed while the Iris Control Selection Switch (86) is set to the M (manual) position the lens iris is automatically set according to the light intensity reaching the lens

Note: Button must be pressed for 5 seconds or improper iris setting will result

88. Iris Control Selection Switch (A/M)

This switch selects the operational condition of the lens iris:

A (Auto): The lens iris is automatically controlled. When the camera is used in studio applications together with the Remote Control Unit (RCU), this switch should be set to the 'A' position. In this case, the lens iris is remotely controlled from the RCU or RCB

M (Manual): The lens iris can be manually controlled by rotating the Iris Ring (97). With this setting, the correct lens iris setting can also be set by pressing the Auto Iris Button (87).

89. Servo Zoom Control (Wide/Tele)

The zoom function of this 1.4f zoom lens can be controlled by pressing this control. Zooming to tele as well as wide angle is possible. Furthermore, the zooming speed can be controlled by changing the pressure applied on this control.

90. Return Video Button

When an auxiliary signal such as a liveview signal from a Special Effects Generator is supplied to the auxiliary connector of the Remote Control Unit (RCU) while the camera is set up for system operation, this signal can be previewed on the electronic viewfinder as long as this button is kept pressed. When a 3/4" U-vision portable recorder, connected through the VTR's 14-pin camera input connector, or an S-VHS VTR recorder is set to the playback mode, the played back picture can be viewed as long as this button is kept pressed

91. Auto Iris Sensitivity Control (IRIS GAIN)

With setting the iris Control Selection Switch (88) to the A position, adjust the iris Gain by turning this control.

92. VTR Start/Stop Button (VTR)

This switch is used to start and pause the connected recorder. The function of this button is identical to the VTR Start/Stop Button (5) on the camera

After having set the recorder to the recording standby mode, press this button to start and pause recording. While recording is in progress, the Recording/Tally indicator in the viewfinder and the Tally Light (101) on front of the viewfinder lights.

93. Servo/Manual Zoom Selection Switch (SERVO/MANU)

This switch is used to select between zooming by servo control or manually

SERVO: Zoom operation is performed by pressing either side of the Servo Zoom Control (89)

MANU: Zoom operation is performed manually by rotating the Zoom Ring/Lever (96)

94. Connector for Zoom Remote Controller

The Zoom Remote Controller included in the Lens Control Kit WV-LK35 should be connected to this connector. This will allow remote control of zooming

95. Focus Ring

Rotating this ring will change the lens focus. By observing the picture in the viewfinder, correct focus can easily be set.

With the optional Lens Control Kit WV-LK35, including flexible cable for the Zoom Remote Controller and Focus Controller, zooming and focusing can be remotely controlled.

96. Zoom Ring/Lever

By setting the Servo/Manual Zoom Selection Switch (93) to the MANU (manual) position, zooming can be manually performed through use of this ring/lever. 13 times magnification is possible from wide angle to telephoto. When the Servo/Manual Zoom Selection Switch (93) is set to the SERVO position, zooming is performed with the Servo Zoom Control (89)

97. Iris Ring

When the iris Control Selection Switch (86) is set to the M (manual) position, the lens iris can be manually adjusted by rotating this ring.

98. Flange-back Lock Knob

The Flange-back Adjustment Ring (99) can be locked by turning this knob.

99. Flange-back Adjustment Ring

The flange-back (or back focus) of the lens can be adjusted by rotating this ring. The Flange-back Lock Knob (98) should be released prior to adjustment

100. Macro Ring/Button

For close-up shooting, rotate this ring to the macro area while pressing this button. After setting the Servo Zoom Control (89) to the WIDE position, close-up shooting up to approximately 50 mm (2") from the lens surface is possible by rotating this ring

1.5" ELECTRONIC VIEWFINDER WV-VF42

101. Tally Light

This light is lit when the Tally ON/OFF switch (105) is set to ON position and the VTR has been set to the recording mode with the VTR Start/Stop Switch. This light indicates that recording in progress.

102. Accessory Shoe

Do not mount a light source

103. Eye Cap

The eye cap, besides blocking out stray light, offers comfortable viewing of the monitor picture. The cap may be flipped open if this is desired.

104. Diopter Adjustment Ring

Rotate this ring for optimum diopter setting

Note: Loosen the Lock Ring (110) before this adjustment

105. Tally ON/OFF Switch (TALLY ON/OFF)

This switch turns ON/OFF the Tally Light (101) located on front of the viewfinder

LED Indicators in the Electronic Viewfinder

- Recording/Tally Indicator (Red)

This indicator lights when the VTR is set to the recording mode by pressing the VTR Start/Stop Switch. When using the camera with a 3/4" U-vision recorder or 1/2" S-VHS portable VTR, through the use of the VTR's 14-pin camera connector, M11 portable VTR's 26-pin connector. If the video tape is not loaded, the tape end is reached or if the servo mechanism is not working properly, this Indicator blinks to warn the camera operator.

Note: If a portable VTR is not connected to the camera, the Recording/Tally Indicator will not light.

-Auto Warning Indicator (Green)

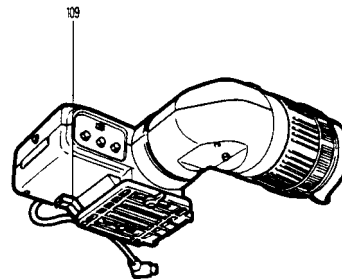
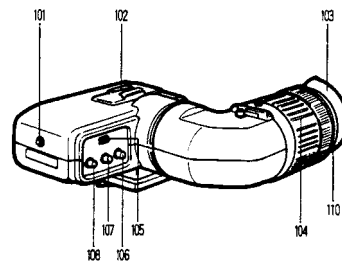
This Indicator blinks while the white balance or black balance is being automatically set. This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance.

-Battery Warning Indicator (Amber)

When this Indicator blinks, the battery should be replaced. The battery will only supply sufficient power to the camera for a few minutes after the indicator starts blinking.

-Shutter/High Gain Indicator (Green/Red)

The Indicator lights red to indicate high gain selection of MID or HIGH has been selected with the High/Gain Selection Switch (29)



When the shutter is turned on, this lights in green. This indicator lights yellow to indicate the shutter on when the high gain selection of MID or HIGH has been selected.

And also this indicator lights yellow to indicate the shutter on when the high gain selection of NE has been selected by the Colour Bar/Night Eye/Camera Selection Switch (27).

106. Brightness Control (BRIGHT)

Turn this control clockwise to increase the brightness of the picture in the viewfinder.

107. Contrast Control (CONTRAST)

Turn this control clockwise to increase the contrast of the picture in the viewfinder

108. Peaking Control (PEAKING)

When shooting under low light conditions, turning this control clockwise will facilitate easy focusing adjustment.

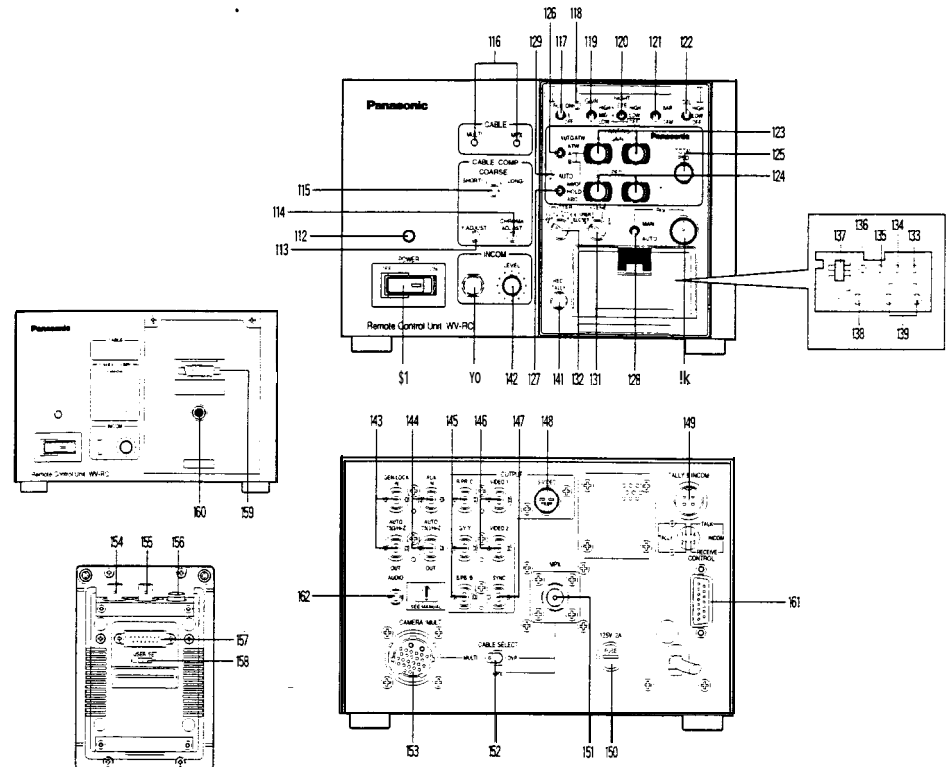
109. Viewfinder Slide Stopper

When removing the viewfinder from the camera, first release the viewfinder Lock lever and then slide the viewfinder to the right (as viewed from the front) while pulling this stopper

110. Lock Ring

After completing the diopter adjustment, tighten this ring

REMOTE CONTROL UNIT WV-RC700A



The illustration of the front panel shown above has been stuck the operation seat.

111. Power Switch (POWER, ON/OFF)

This switch turns on and off the power of the Remote Control Unit (RCU)

112. Power Indicator

This switch lights red whenever the unit is operating.

113. Luminance Gain Fine Control (Y ADJUST)

This control allows for fine adjustment of the luminance signal level for matching the levels of all cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (115) to the correct position

114. Chroma Gain Fine Control (CHROMA ADJUST)

This control allows for fine adjustment of the chroma signal level for matching the chroma levels of all the cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (115) to the correct position

115. Cable Length Compensation Switch (CABLE/COMP)

This switch is used to compensate for extensive cable lengths used with the 26-pin multi-cable between the camera and Remote Control Unit (RCU)

- 1 Use for cable length of less than 75m (225 ft)
- 2 Use for cable length of 75-150m (225-450 ft)
- 3 Use for cable length of 150-230m (450-690 ft)
- 4 Use for cable length of 230-300m (690-900 ft)

This switch is also used to compensate for extensive cable lengths used with the coaxial cable between the camera and Remote Control Unit (RCU)

1. Use for cable length of less than 50m (450 ft)
2. Use for cable length of 150-300m (450-990 ft)
- 3 Not available
- 4 Not available

116. Cable Indicator (CABLE, MULTI/MPX)

This indicator shows the setting position of the Cable Selection Switch (152) on the rear panel

117. Remote Control Box (RCB) Operation Switch (RCB)

When connecting the Remote Control Box to the camera without using the Remote Control Box, set this switch to ON position. When the RCB is installed in the RCU, this switch can not operate.

118. Remote Control Box Indicator (ON/OFF)

This indicator lights when control data is communicated between the camera and the Remote Control Unit (RCU) or Remote Control Box (RCB).

119. High Gain Selection switch (GAIN. HIGH/MID/LOW)

The gain up level can be selected by this switch. The level of HIGH, MID and LOW can be set by the Sub Menu with the combination shown below

HIGH	MID	LOW
18 dB	9 dB	0 dB
24 dB	12 dB	0 dB
12 dB	6 dB	0 dB
6 dB	3 dB	0 dB
12 dB	0 dB	-6 dB
6 dB	0 dB	-6 dB

120. Night Eye Selection Switch

(NIGHT EYE, HIGH/LOW/OFF)

HIGH: Gain-up level of +36 dB can be obtained at this position

LOW: Gain-up level of +30 dB can be obtained at this position

OFF: Gain-up level can be set by the High Gain Selection Switch (119).

Note: When this switch is set the HIGH or LOW position, the High Gain Selection Switch (119) does not work.

121. Colour Bar/Camera Selection Switch (BAR/CAM)

In a system configuration, this switch is used for signal selection between camera mode and colour bar mode.

BAR: A colour bar signal is provided from the Video Output Connector (146) on the Remote Control Unit (RCU)

CAM: The actual picture, as picked up through the lens is displayed

122. Detail Level Selection Switch

(DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

123. Red and Elua Gain Controls (PAINTING, R GAINB GAIN)

These controls are used to manually adjust the white balance.

These controls only work when the White Balance Selection Switch (126) is set to the A or B position and PAINTING in No. 2 Sub Menu is set to the ON

turn the controls clockwise to increase the red and blue signal levels and counterclockwise to decrease these levels.

Note: As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps

124. Red and Blue Pedestal Level Controls (PED, R/B)

The black balance can be set manually by these controls when fine PAINTING in No.2 Sub Menu is set to the ON. Turn these controls clockwise to increase the red and blue pedestal levels, and Counterclockwise to decrease the levels

Note: As these controls employ the Digital Processing, these level will be changed in discrete steps

125. Total Pedestal Level Control (TOTAL PED)

This control can adjust the pedestal level of the video signal (luminance) for matching the black level between WO or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note: As this control employs the Digital Processing, this level will be changed in discrete steps.

126. White Balance Selection Switch

(AUTO/ATW, ATW/A/B)

This switch is used to select the white balance modes as follows:

ATW: The white balance can be adjusted automatically

A: The White Balance can be set automatically by pressing the Auto White/Auto Black Set Switch (127) upwards. The setting is stored in memory A.

B: Similar to A, but the setting is stored in memory B

Note: Two white balance setting, one each for different lighting conditions such as indoor and outdoor, may be stored in the two memories, A and B.

127. Auto White/Auto Black Set Switch (AWC/HOLD/ABC)

This switch sets the white balance and black balance automatically as follows:

AWC: This position is used for setting the white balance when the White Balance Selection Switch (126) is set to the A or B position. White balance adjustment is required when "AWC A NG" or "AWC B NG" is displayed in the viewfinder or when the Auto Warning Indicator (129) on lights

HOLD: In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year

ABC: This position is used for setting the black balance when the White Balance Selection Switch (126) is set to the A or B position

Black balance adjustment is required when 'ABC NG' is displayed in the viewfinder or when the Auto warning indicator (129) on the Remote Control Unit (RCU) lights.

Note: While the black balance adjustment is being performed, the picture will flash in the viewfinder and on the monitor screen. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.

128. Lens Iris Selection Switch (IRIS, M/A/AUTO)

This switch is used to set the lens iris of the auto-iris servo control zoom lens as follows.

AUTO: The iris level of the lens is controlled automatically

Note: Be sure to set the iris Control Selection Switch on the zoom lens to the AUTO position

MAN: The iris level of the lens is controlled to the desired level by using the Lens Iris Control (130).

129. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set, it goes out once the white and black balances have been correctly set. This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance

130. Lens Iris Control (IRIS)

The iris level of the zoom lens can be manually controlled by turning this control when the Lens Iris Selection Switch (128) is set to the MAN position. 'AUTO IRIS' on Sub Menu/User Set Menu is set to 'ADJ ON' in the Auto Iris mode, the fine adjustment of this level is available

131. Scene Selection Switch (SCENE USER SET, 1,2,3)

This switch is used to select the most suitable camera conditions, depending on scene conditions, to obtain the best picture possible.

Refer to page 60 for details

132. Electronic Shutter Speed Selection Switch

(SHUTTER OFF/120,500,1000, S/S, ELC)

This switch is operative only when a camera featuring the electronic shutter is connected with the Remote Control Unit.

When fast-moving objects are shot at the slow shutter speeds typically found in conventional cameras they will appear blurred.

OFF: Set this switch to this position when recording normally with standard shutter speeds

120/500/1000: Choose the suitable shutter speed from these

S/S: The shutter speed can be continual changed from 50 to 250 4 Hz at this position by using the SYNCRO in No 1 Sub Menu

ELC: The ELC position makes the electric control for the luminance with the shutter

Note: The smear may be appeared with the high light objects

133. Down switch (DOWN)

This switch is used to decrease the set value of the item pointed out by the cursor when in the User Set menu

134. Up Switch (UP)

This switch is used to increase the set value of the desired item pointed out by the cursor when in the User Set menu.

135. Item Switch (ITEM)

This switch is used to choose the item in the set-up menus.

136. Page Switch (PAGE)

This switch is used to choose the desired set-up menu from the four menus.

137. User Set ENC/VF Selection Switch

(ENC/VF, OFF/ON)

This switch selects Encoder output or EVF (black and white) output from the Video Output Connector and whether the User Set Function is available as follows

1 Switch set to position ENC/OFF

The User Set function is not available

2 Switch set to position ENC/ON:

The User Set function is available.

3. Switch set to position VF/ON:

User Set function is available and the menu is displayed on the monitor and EVF

138. Horizontal Phase Control for Gen-lock (H PHASE)

The horizontal phase of the camera signal can be adjusted to match the horizontal phase of the signal at the Gen-lock Input Connector (143).

139. Subcarrier Phase Coarse and Fine Controls

(SC PHASE COARSE/FINE)

These controls allow for adjustment of the camera signal subcarrier phase from 0° to 360°, to match the phase with that of the burst signal at the Gen-lock Input Connector (143) in a system configuration. The COARSE control adjusts the subcarrier phase

from 0° to 360° in 90° steps, while the FINE control allows for continuous fine adjustment over a range of 90°

140. Intercom Jack (INTERCOM)

This jack is used for communications between the camera operator and Remote Control Unit (RCU) operator in a system configuration with a Special Effects Generator

141. Tally Indicator (REC/TALLY)

When the Remote Control Unit (RCU) is used in conjunction with a Special Effects Generator, the Tally Indicator inside the viewfinder as well as this indicator on the Remote Control Unit (RCU) will light to indicate that recording is in progress.

Note: When using the Remote Control Box (RCB) in the Remote Control Unit (RCU), the recording start/stop function is not available.

143. Intercom Level control (INTERCOM LEVEL)

Use this control to adjust the volume level in the head-set connected to the Intercom Jack (140)

143. Gen-lock Input Connectors (BNC)

(GEN-LOCK IN AUTO 750hm/Hi-Z OUT)

These connectors receive the gen-lock signal (black burst or composite) from the Special Effects Generator for system reference.

When connecting a coaxial cable with BNC connector to this connector, this connector is automatically terminated with 75 ohms.

Caution: As this connector is in parallel connection with the Remote Control Box Gen-lock Input Connector (155), do not input gen-lock signals to both of these connectors simultaneously

144. Auxiliary Input Connectors (AUX IN-AUTO/750hm. Hi-Z OUT)

These connectors receive the lineview signal from a Special Effects Generator. Two connectors are provided for bridging or looping application

When connecting a coaxial cable with BNC connector to this connector, this connector is automatically terminated with 75 ohms

145. Red, Green and Blue Output Connectors (OUTPUT-R/PR/C, G/Y/Y, B/PB/B)

Signals supplied from these connectors are selected by the RCU/VTR Signal Selection Switch (69) on the Camera Adaptor. Refer to page 47 for setting the RCU/VTR Selection Switch.

Note: The RCU/VTR Signal Selection Switch (69) on the Camera Adaptor has been set to the ENC position at the factory

146. Video Output Connectors (OUTPUT-VIDEO 1, VIDEO 2)

These connectors supply a composite video signal to a Special Effects Generator, a Video Monitor or a VTR

Note: This connector is in parallel connection with the Monitor Output Connector (154) on the Remote Control Box (RCB).

147. Sync Output Connector (SYNC OUTPUT)

This Connector supplies a negative 4Vp-p/75 sync signal to the Sync Input of an RGB Colour Video Monitor for synchronization.

148. S-Video Output Connector (S-VIDEO)

This connector outputs the Y/C signal when the RCU/VTR Signal Selection Switch (69) on the camera adaptor is set to the Y/C/B Position

149. Tally and Intercom Input Connector

(TALLY & INTERCOM)

Connect a 4-pin cable between this connector and the Tatty and Intercom Output of the Special Effects Generator

150. Fuse (250V 1,25A)

151. Multiplex Connector (MPX)

This connector is connected to the Multiplex Connector of the camera with coaxial cable (5C-2V or equal)

Note: When using this connector, set the Cable Selection Switch (152) to MPX position

152. Cable Selection Switch

(CABLE SELECT, MULTI/MPX)

Set this switch to the MULTI or MPX position according to the control cable used.

MULTI: Select this position when the 26-pin cable (Multi cable) is used to control the camera

MPX: Select this position when the coaxial cable (5C-2V) is used to control the camera

Caution: Do not use the multi-cable and the coaxial cable together

153. Multi-cable Connector (CAMERA)

This connector is connected with the VTR/RCU Connector (41) by using the multi-cable (26-pin)

Note: Be sure to Set the Cable Selection Switch (152) to the MULTI position.

154. Monitor Output Connector of the Remote Control Box (RCB)

As this connector is in parallel connection with the OUTPUT-VIDEO 2 Connector (146), do not output the signal simultaneously from both connectors.

155. Gen-lock Input Connector of Remote Control Box

This connector is used to input the gen-lock signal to the Remote Control Box when using the Remote Control Box extended from the Remote Control Unit

156. Remote Control Unit Extension Connector

This connector is used to extend the Remote Control Box from the Remote Control Unit or from the camera by using the optional RCB cable (WV-CA10B02/WV-CA10B25/WV-CA10B50)

The maximum cable length for the extension is 100m (300 ft)

Refer to the following table

Cable length	(m)	2	25	50	100
	(ft)	6	75	150	300
Decrement		10%	15%	20%	30%

Note: As the video level is changed by using various cable lengths, under certain conditions it may be out of the specification for the AW-F575E.

157. Remote Control Unit Connector

This connector is used for directly connecting with the Remote Control Box Connector (159) on the Remote Control Unit.

158. Not used

159. Remote Control Box Connector

This connector is connected directly with the Remote Control Unit Connector (157) on the Remote Control BOX.

160. Remote Control Box Extension Connector

This is connected to the Remote Control Unit Extension Connector (156) on the Remote Control Box by using the optional cable.

Refer to Item 156 for more details.

161. Control Connector (CONTROL)

This connector is connected with the control connector of the pan/tilt unit or lens control by using the multi-cable (15-pin)

1	LEFT
2	RIGHT
3	UP
4	DOWN
5	-
6	FOCUS
7	-
8	ZOOM
9	DEFROSTER
10	WIPER
11	-
12	+5V
13	+V (+7.5V)
14	-V (+2.5V)
15	GND



Pan/Tilt or Housing Control Voltage

	Operation	Stop
LEFT	2.5V	0
RIGHT	2.5V	0
UP	2.5V	0
DOWN	2.5V	0
DEFROSTER	2.5V	0
WIPER	2.5V	0

Lens Control Voltage

	Speed	
	Low	High
NEAR	4.0V	2.5V
FAR	6.0V	7.5V
WIDE	4.0V	2.5V
TELE	6.0V	7.5V

Note: The impedance for the control voltage should be 2 kohms or less

162. Audio Output Jack (AUDIO OUT)

By setting the Audio Level Selection Switch of the Camera Adaptor AW-AD700BSE to the -20 dB position, the audio output is available.

Note: In case of Multiplex or VP Multiplex operation, set the Audio Level Selection Switch of the Camera Adaptor AW-AD700BSE to the -20 dB position. Me Switch 1 on the Audio Board in side the Camera Adaptor AW-AD700BSE and Switch 2 on the MOD board inside this unit to the AUDIO position for the Audio Output function to be activated

REMOTE CONTROL UNIT RACK MOUNT FRAME WV-Q70

165. Rack-mounting Spacer

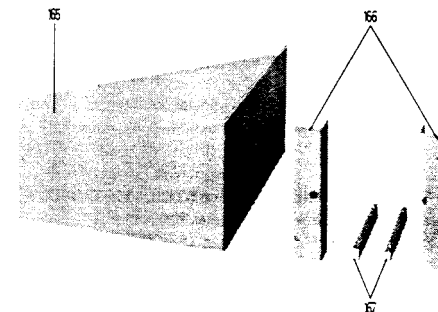
This is used when mounting a single Remote Control Unit in a rack

166. Rack-mounting Angles

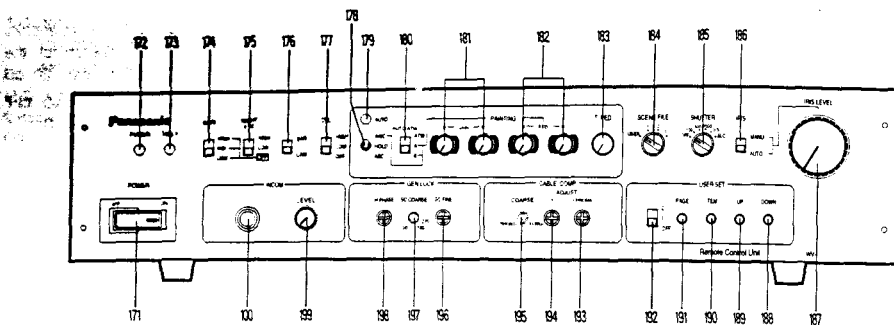
These two Rack-mounting Angles are used for mounting two Remote Control Units side by side in a rack

167. Remote Control Unit Joining Bar

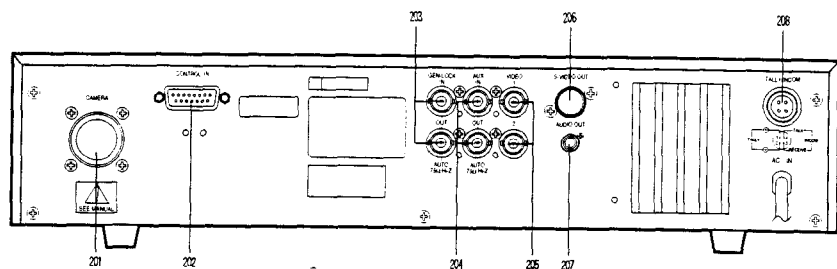
These bars are used to join two Remote Control Units together.



REMOTE CONTROL UNIT WV-RC550



The operation panel shown above will be provided as spare parts through the service channel.



171. Power Switch (POWER ON/OFF)

This switch turns on and off the power of the Remote Control Unit (RCU)

172. Power Indicator

This switch lights red whenever the unit is operating.

173. Tally Indicator (TALLY)

When this unit is used in conjunction with a Special Effects Generator, this indicator will light to indicate the selection of this unit from a Special Effects Generator

174. High Gain Selection Switch (GAIN, HIGH/MID/LOW)

The gain-up level can be selected.

The level of HIGH, MID and LOW can be set by the Sub Menu with the combination shown below

HIGH	MID	LOW
18 dB	9 dB	0 dB
24 dB	12 dB	0 dB
12 dB	6 dB	0 dB
6 dB	3 dB	0 dB
12 dB	0 dB	-6 dB
6 dB	0 dB	-6 dB

175. Night Eye Selection Switch (NIGHT EYE, HIGH/LOW/OFF)

HIGH: Gain-up level of +36 dB can be obtained at this position.

LOW: Gain-up level of +30 dB can be obtained at this position

OFF: Gain-up level can be set by the High Gain Selection Switch

Note: When this switch is set to the HIGH or LOW position the gain-level setting by the High Gain Selection Switch (174) is not available

176. Colour Bar/Camera Selection Switch (BAR/CAM)

In a system configuration, this Switch is used for signal selection between camera mode and colour bar mode

BAR: A colour bar signal is provided from the Video Output Connector (205) of this unit

CAM: The actual camera picture, as picked up through the lens, is displayed

177. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)

The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture

178. Auto White/Auto Black Set Switch (AWC/HOLD/ABC)

This switch sets the white balance and black balance automatically as follows.

AWC: This position is used for setting the white balance when the White Balance Selection Switch is set to the A or B position of the White Balance Selection Switch (180) White balance adjustment is required when the Auto Warning Indicator on this unit lights.

HOLD: In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year.

ABC: This position is used for setting the black balance even if the White Balance Selection Switch (180) is set to any position Black balance adjustment is required when the Auto Warning Indicator on this unit lights

Notes:

- While the black balance adjustment is being performed, the picture will flash on the monitor screen. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.
- If the Lens Iris Selection Switch is set to MAN position, Auto Black Balance may be not performed correctly

179. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set. It goes out once the white and black balances have been correctly set. This indicator lights when the white or black balance is set improperly In this case, carry out the automatic setting procedure for white and/or black balance

180. White Balance Selection Switch (AUTO/ATW, ATW/A/B)

This switch is used to select the white balance mode as follows.

ATW: The white balance can be adjusted automatically

A: The white balance can be set automatically by pressing the Auto White/Auto Black Set Switch (178) upwards The setting is stored in memory A.

B: Similar to A. but the setting is stored in memory B

Note: When this switch is set to the A or B position and PAINTING in No 2 Sub Menu or User menu has been set to the ON position, the white balance or red and blue pedestal levels can be adjusted fine by the Red and Blue Gain Controls (181) or Red and Blue Pedestal Level Controls (182).

When this switch is set to the ATW position, white balance can be continuously adjusted automatically

181. Red and Blue Gain Controls (R GAIN/B GAIN)

These controls are used to manually adjust the fine level of white balance.

These controls only work when the White Balance Selection Switch (180) is Set to A/B position and PAINTING in No 2 Sub Menu is set to the ON mode.

Turn these controls clockwise to increase the red and blue signal levels, and counterclockwise to decrease these levels

Note: As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps

182. Red and Blue Pedestal Level Controls (PED, R/B)

The fine adjustment of black balance can be set manually by these controls

These controls only work when PAINTING in No 2 Sub Menu is set to ON mode

Turn these controls clockwise to increase the red and blue pedestal levels, and counterclockwise to decrease the levels

Note: As this control employs Digital processing, these levels are changed in discrete steps

183. Total Pedestal Level Control (T. PED)

This control can adjust the pedestal level of the video signal (luminance) for matching the black levels between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level

Note: As this control employs Digital Processing, this level may be changed in the step.

184. Scene File Selection Switch (SCENE FILE, USER A/B/1/2/3)

This switch is used to select the most suitable camera conditions for various scenes to obtain the best picture

1: Studio Mode

This position is suitable for shooting in normal condition.

Note: This level is adjusted under the condition of 2000 lux 3200°K at F8

2: ENG Mode

This position is suitable for shooting under fluorescent, halogen or outdoor lightning

Note: The shooting condition can be selected on the Main menu

3: Low Light Mode

This position is suitable for low illumination level shooting

USER: The camera conditions can be set to the desired level by the user

185. Electronic Shutter Selection Switch

(OFF / 120 / 500 / 1000 / SS / ELC)

This switch is operative only when a camera featuring the electronic shutter function is connected with this unit

OFF: set this switch to this position when recording normally with standard shutter speeds

120/500/1000: Choose the suitable shutter speed from these when recording high speed action.

SS: Shutter speed can be adjusted to the desired position using SYNCRO in No 1 Sub Menu so that horizontal bar noise will be reduced when this switch is set to this position

ELC: The ELC position makes the electric control for the luminance with the shutter

Notes:

1. The smear may be appeared with the high light objects
2. When the Lens Iris Selection Switch (186) has been set to the AUTO, the fine adjustment of Electronic Light Control (ELC) and lens iris can be made by the Iris Level Control (187) simultaneously

186. Lens Iris Selection Switch (IRIS, MANU/AUTO)

AUTO: When the iris Control Selection Switch of the lens has been set to the A (Auto) position, the iris level of the lens is controlled automatically

When AUTO IRIS in No.1 Sub Menu has been set to ADJ ON, the iris level can be adjusted fine by means of the Iris Level Control (167)

MANU: The iris level of the lens is controlled manually by turning the Iris Level Control (167)

187. Iris Level Control (IRIS LEVEL)

This control is used to adjust the lens iris level. The iris level, which had been automatically set, can be controlled fine by using this control when the Lens Iris Selection Switch (166) is set to the AUTO position and AUTO IRIS in No.1 Sub Menu is set to the ADJ ON position

188. Down Switch (DOWN)

This Switch is used to decrease the set value of the item pointed out by the cursor in a menu

189. Up Switch (UP)

This switch is used to increase the set value of the desired item pointed out by the cursor in a menu

190. Item Switch (ITEM)

This switch is used to choose the item in the set-up menus

191. Page Switch (PAGE)

This switch is used to select the desired set-up menu from the available menus

192. User Set Switch (OFF/1/2)

This switch selects Encoder output or EVF (black and white) output from the Video Output Connector and whether the User Set Function is available as follows:

OFF: Switch set to position OFF

Setup function is not available

1: Switch set to position #1

User Set function is available and the User Set Menu is displayed on the EVF

2: Switch set to position #2:

User Set function is available and the User Set Menu is displayed on the monitor and the EVF

193. Chroma Gain Fine Control (ADJUST CHROMA)

This control allows for fine adjustment of the chroma signal level for matching the chroma levels of all the cameras in a system

Adjust this Control only after having set the Cable Length Compensation Switch (195) and the Luminance Gain Fine Control (194) to the correct position

194. Luminance Gain Fine Control (ADJUST γ)

This control allows for fine adjustment of the luminance signal level for matching the levels of all cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (195) to the correct position

195. Cable Length Compensation Switch (COARSE, 1/2/3/4)

This switch is used to compensate for extensive cable length used with the 26-pin studio cable between this unit and the camera.

1. Use for cable length of less than 75m (225 ft)
2. Use for cable length of 75-150m (225-450 ft)
3. Use for cable length of 150-230m (450-690 ft)
4. Use for cable length of 230-300m (690-900 ft)

199. Subcarrier Phase Fine Control for Gen-lock (SC FINE)

This control allows for adjustment of the camera signal subcarrier phase from 0° to 360° to match the phase with that of the burst signal at the Gen-lock Input Connector in a system configuration

197. Subcarrier Phase Coarse Control for Gen-lock (SC COARSE)

The Coarse control adjusts the subcarrier phase from 0° to 360° in 90° steps, while Fine control allows for continuous fine adjustment over a range of 90

198. Horizontal Phase Control for Gen-lock (H PHASE)

The horizontal phase of the camera signal can be adjusted to match the horizontal phase of the signal at the Gen-lock Input Connector

199. Intercom Level Control (INTERCOM LEVEL)

Use this control to adjust the volume level in the headset connected to the Intercom Jack

200. Intercom Jack (INTERCOM)

This jack is used for communications between the camera operator and the Remote Control unit operator in a system configuration with a Special Effects Generator

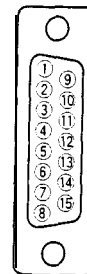
201. Camera Connector (CAMERA)

This Connector is connected with the VTR/RCU Connector of camera by using 26-pin studio cable.

202. Control Connector (CONTROL IN)

This connector is connected with the control connector of the pan/tilt unit or lens control by using the 15-pin multi cable.

1	LEFT
2	RIGHT
3	UP
4	DOWN
5	-
6	FOCUS
7	-
8	ZOOM
9	DEFROSTER
10	WIPER
11	-
12	+5V
13	+V (+7.5V)
14	-V (+2.5V)
15	GND



Pan/Tilt or Housing Control Voltage

	Operation	Stop
LEFT	2.5V	0
RIGHT	2.5V	0
UP	2.5V	0
DOWN	2.5V	0
DEFROSTER	2.5V	0
WIPER	2.5V	0

Lens Control Voltage

	Speed	
	Low	High
NEAR	4.0V	2.5V
FAR	6.0V	7.5V
WIDE	4.0V	2.5V
TELE	6.0V	7.5V

Note: The impedance for the control voltage circuit should be 2 kOhms or less

203. Gen-lock Connectors

(GEN-LOCK IN/OUT/AUTO 75 Ohm - Hi Z)

These Connectors receive the gen-lock signal (black burst) or composite from the Special Effects Generator for system reference

When connecting two coaxial cables with BNC connectors to these connectors, the high impedance video loop is automatically selected. At all other times, these connectors are automatically terminated with 75 ohms

Note: When not looping the gen-lock signal, be sure to connect the coaxial cable to the GEN-LOCK IN Connector otherwise these connectors can not be automatically terminated

204. Auxiliary Input Connectors (AUX IN/OUT/AUTO 7.5 Ohm / Hi-Z)

These Connectors receive the lineview signal from a Special Effects Generator Two connectors are provided for bridging or looping application

When connecting a single coaxial cable with BNC connector to this connector, these connectors can not be automatically terminated with 75 ohms

Note: When not looping Aux. signal, be sure to connect the coaxial cable to AUX IN Connector.

Otherwise, these connectors are automatically terminated with 75 ohms

205. Video Output Connectors (VIDEO 1, VIDEO 2)

These connectors supply a composite video signal to a Special Effects Generator, a Video Monitor or a VTR

206. S-video Output Connector (S-VIDEO OUT)

This connector outputs the Y/C signal when the Camera Output Signal Selector is set to Y/C position

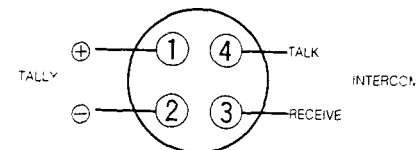
207. Audio Output Jack (AUDIO OUT)

By setting the Audio Level Selection Switch of the Camera Adaptor AW-AD700BSE to the -20 dB position, the audio output is available

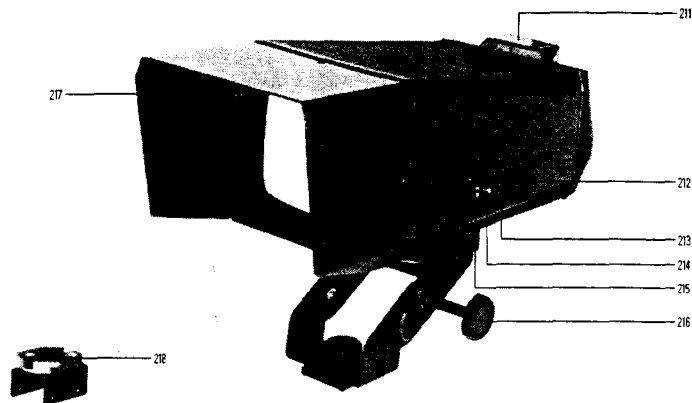
Note: In case of Multiplex or VP Multiplex operation set the Audio Level Selection Switch of the Camera Adaptor AW-AD700BSE to the -20 dB position, the Switch 1 on the Audio Board inside the Camera Adaptor AW-AD700BSE and Switch 2 on the MOD board inside this unit to the AUDIO position for the Audio Output function to be activated

208. Tally and Intercom Input Connector (TALLY & INTERCOM)

This connector is connected with the Tally/Intercom connector of a Special effect generator



5" ELECTRONIC VIEWFINDER WV-VF65B



211. Tally Light

This light only works when the camera is "sed in full system operation with the Remote Control Unit (RCU) and Special Effects Generator This light Indicates that recording is in progress

212. Contrast Control (CONTRAST)

Turn this control clockwise to increase the contrast of the picture in the viewfinder

213. Brightness Control (BRIGHT)

Turn this control clockwise to increase the brightness of the picture in the viewfinder

214. Tally ON/OFF Switch (TALLY ON/OFF)

This switch turns on/off the Tally Light (211) located on front of the viewfinder

215. Peaking On/Off Switch (PEAKING ON/OFF)

Normally this switch should be set to the OFF position However, when shooting under low light conditions, setting this switch to the ON position will facilitate easier focusing adjustment

216. Viewfinder Adjustment Knob

The angle of the 5" viewfinder can be adjusted for easy and comfortable viewing

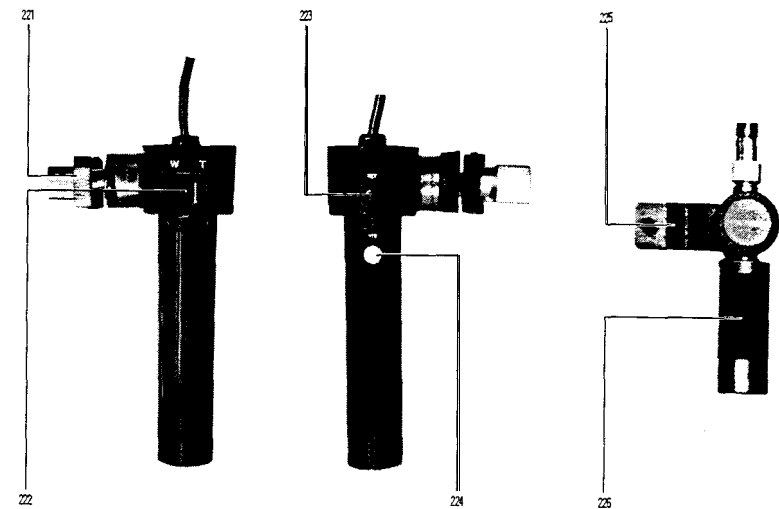
217. Tally Indicator

When used in full system operation with the Remote Control Unit (RCU) and Special Effects Generator, this indicator shows the camera operator that recording is in progress and the recording signal is being sent to the line output.

218. 5" Viewfinder Mounting Bracket WV-071

This is used to mount the 5" Electronic Viewfinder WV-VF65B, on the AW-F575E Colour Camera
See page 34 for installation details

LENS CONTROL KIT WV-LK35



221. Clamper

Install the zoom controller on the right tripod arm by using this clamper.

222. Servo Zoom Control

The 1.4f zoom lens can be controlled by pressing this Control to zoom in/out for tele/wide picture with motor drive. The zoom speed can be adjusted by changing the pressure on this control

223. Return Video Button

In a studio application using a special effects generator, the lineview signal is displayed on the viewfinder while this button is being pressed. When a Panasonic 3/4" U-vision portable VTR with a 14-pin camera in/out connector or an S-VHS VTR is in the playback mode, the playback picture is seen by pressing this button

224. VTR Start/Stop Button

This button is used to start or pause the VTR Press this button for recording and press it again for pause.

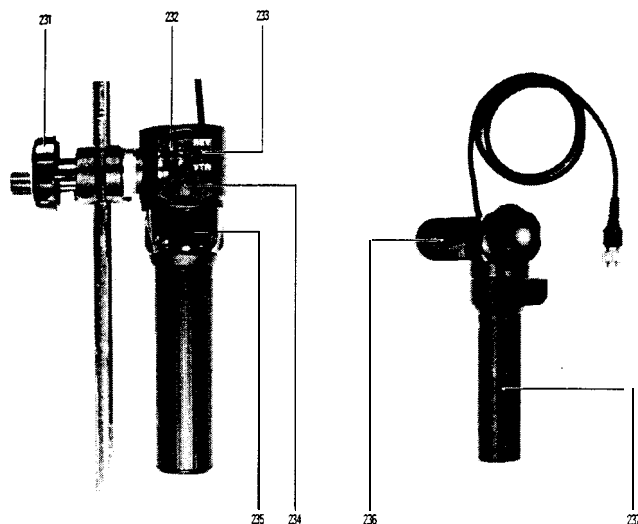
225. Clamper

Install the focus controller on the left tripod arm by using this clamper

226. Focus Controller

Turn this controller for adjusting the lens focus

LENS CONTROL KIT WV-LK36



231. Clamper

232. Speed Control (SP, S-F)

The maximum zoom speed can be adjusted by this Control.

233. Reverse Button (REV)

This button is used to reverse the direction controlled by the Zoom Control Switch.

Use this button by removing the cap

234. VTR Start/Stop Button (VTR)

This button is used to start or pause the VTR. Press this button for recording and press it again for pause

235. Servo Zoom Control

The 14.1f zoom lens can be controlled by pressing this control to zoom in/out for tele/wide picture with motor drive. The zoom speed can be adjusted by changing the pressure on this control

236. Clamper

237. Focus Controller

Turn this controller for adjusting the lens focus.

Note: As for the lens selection to this lens control kit, refer to the qualified service personnel

TRIPOD MOUNTING ADAPTOR WV-QT700

241. Release Button

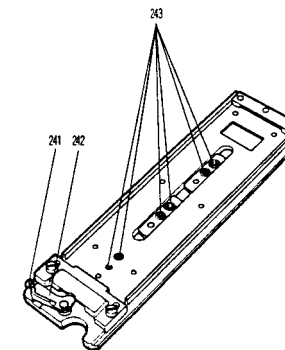
The Lock Lever (242) can be unlocked by pressing this button

242. Lock Lever

The mounting or removing of the camera from the Tripod Mounting Adaptor WV-OT700 is made by locking or unlocking this lever.

243. Mounting Holes

These holes are used to mount the Tripod Mounting Adaptor on the tripod.



CARRYING CASE WV-CC500A

251. Cushion 1 (for AW-AD500AE)

This cushion is used to contain the ENG configuration of the Colour Camera AW-F575E

252. Cushion 2 (for AW-AD700BSE)

This cushion is used to contain the ENG configuration of the Colour Camera AW-F575E.

253. Cushion 3

This cushion used to contain the Camera Recorder System MII format VTR or S-VHS VTR.

254. Tripod Mounting Adaptor Compartment

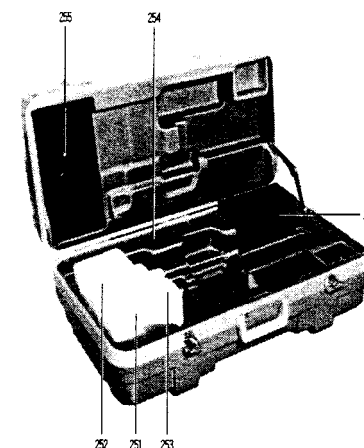
This is provided for storing the Mounting Adaptor WV-QT700.

255. Microphone Compartment

This is provided for storing the Microphone WM-L30

256. AC Adaptor Compartment

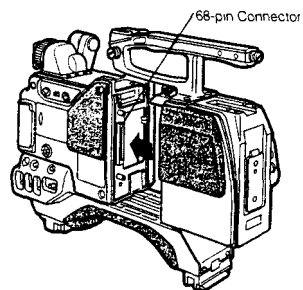
This is provided for storing the AC Adaptor WV-PS34.



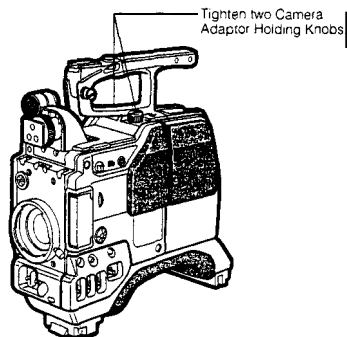
INSTALLATION

1. Mounting the Camera Adaptor

1-1 Mount the Camera Adaptor on the Camera Head while engaging the 68-pin connector



1-2 Tighten the two Camera Adaptor Holding Screw/Knobs firmly, and make sure the Camera Adaptor is securely fixed to the camera.



Caution: When mounting the Camera Adaptor make sure it slides back straight and engages the connectors and lock mechanism squarely in order to prevent bending of the pins in the connector

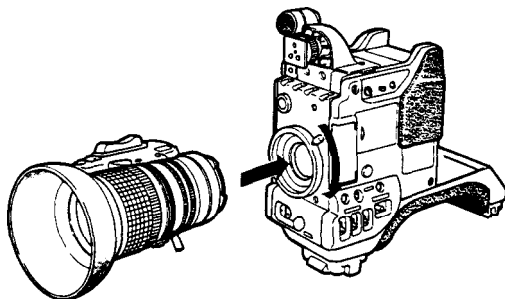
2. Mounting the Lens

2-1 Remove the Body Cap from the camera

2-2 Attach the 14X Auto Iris Servo Control Zoom Lens into the Lens Mount Hole, and turn the Lens Hold Ring/Knob (30) clockwise to secure the lens to the camera body

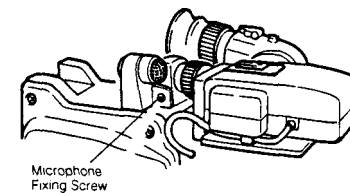
2-3 Check to make sure that the lens is mounted securely.

2-4 Connect the Lens Cable to the 12-pin Lens Connector (1) on the camera

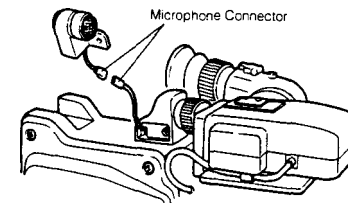


3. Installation of the Optional Microphone Holder

3-1 Remove the Microphone Fixing Screw on the Microphone of this camera.

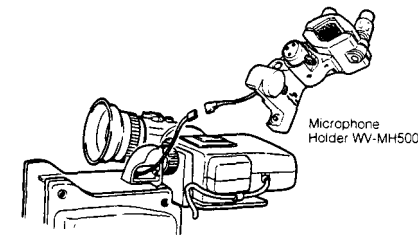


3-2 Disconnect the Microphone Connector (3-pin) of this Microphone from the Camera.



Note: Do not pull the Microphone Connector of this Microphone by the wires

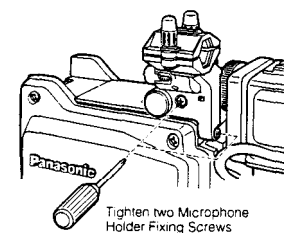
3-3 Connect the Microphone Connector of the optional Microphone Holder to the one of this camera as shown below



3-4 Mount the Optional Microphone Holder on this camera with two Microphone Holder Fixing Screws

3-5 Loosen the two Microphone Holding Knobs, slide the microphone into the Microphone Holder and turn the knobs to secure the microphone to the camera. Connect the plug of the microphone to the XLR type microphone connector on the Microphone Holder.

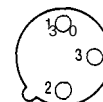
Note: In case of the optional Microphone WM-L30, set the Microphone Power On/Off switch (MIC POWER -> ON/OFF) to the ON position



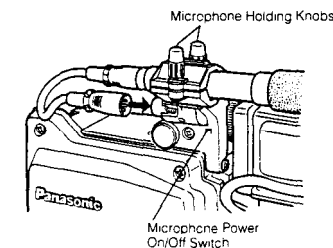
XLR type Microphone Connector (MICROPHONE) Information.

This Connector is used to connect the Microphone

- 1 Shield
- 2 Hot
- 3 Cold

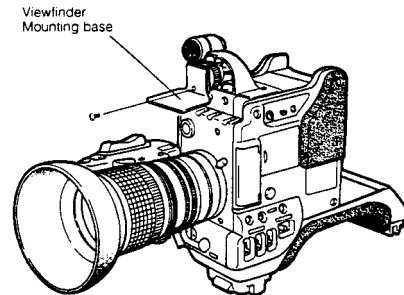
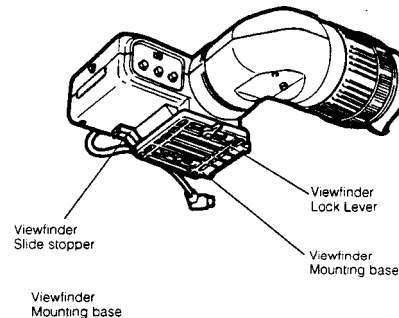


Note: When connecting a microphone connector whose pin designations are different from the above one, the audio output may be not available



4. Mounting the 1.5" Electronic Viewfinder

- 4-1 Unlock the Viewfinder Lock Lever (32) on the Viewfinder.
- 4-2 While pulling the Viewfinder Slide Stopper, remove the Viewfinder Mounting Base (33) by sliding it out from the Viewfinder.
- 4-3 Remove the screw from the Viewfinder Mounting Base.
- 4-4 Install the Viewfinder Mounting Base (33) into the Viewfinder Mounting Plate by using the screw just removed.
- 4-5 Mount the Viewfinder on the Viewfinder Mounting Base (33) by sliding it onto the base.
- 4-6 Securely lock the Viewfinder in place by use of the Viewfinder Lock Lever (32).

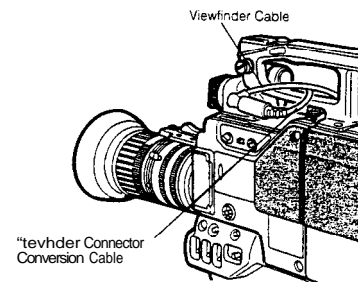
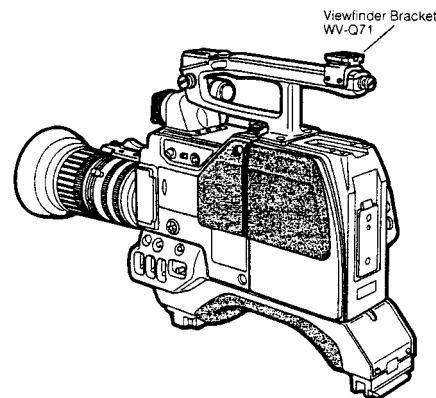
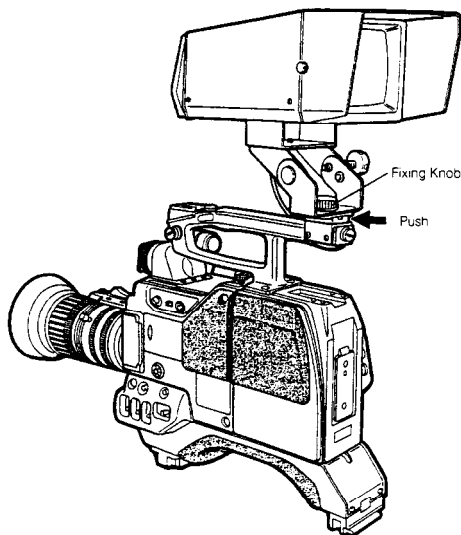


5. Mounting the 5" Electronic Viewfinder

- 5-1 Remove four screws from the handle of the camera.
- 5-2 Mount the Viewfinder Bracket WV-071 on the Camera Handle of the Camera Adaptor by using the four screws just removed.
- 5-3 Slide the Viewfinder adjusting angle into the mounting base and tighten the Fixing Knob to secure the Viewfinder. Connect the viewfinder angle.

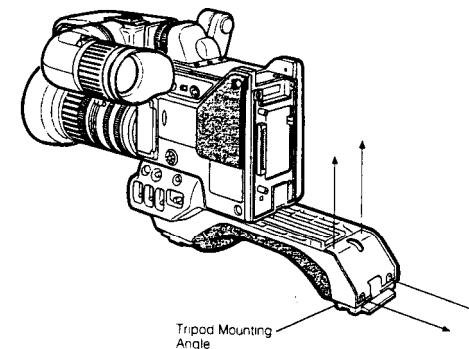
Note: When connecting the viewfinder cable of the viewfinder to the viewfinder connector on the camera.

Use the viewfinder connector conversion cable (supplied) in between the two. After connection is completed, attach the conversion cable to the top cover of the camera by turning the wing screw.



6. Mounting of the MII Format VTR AU-45H/DVC dockable VTR AJ-D90

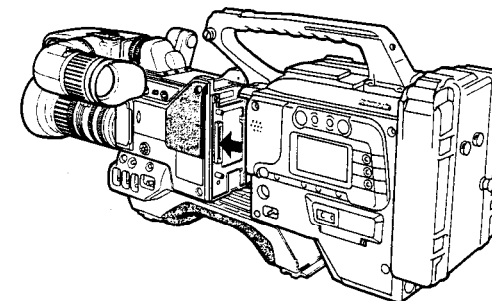
- 6-1 Remove four screws holding the cover for the battery connectors and remove the cover.



Note: When mounting the MII format VTR AU-45H on this camera, fix the Tripod Mounting Angle in the reverse position onto the Shoulder Pad.

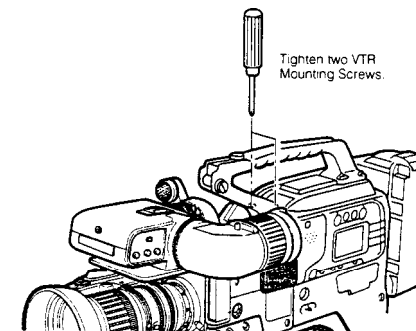
- 6-2 Mount the VTR to the camera by engaging the connectors and lock mechanism.

Caution: Mount the VTR by sliding it straight and engaging connectors and lock mechanism in order to not bend the pins of the connector and to not create a short circuit.



Note: The VTR on the right figure is mounted the Battery Holder AU-M402.

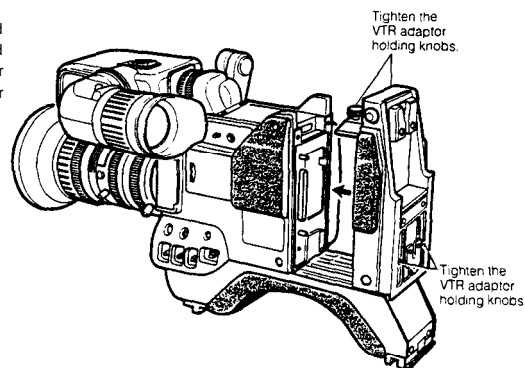
- 6-3 Tighten two VTR Mounting Screws on the VTR Handle firmly and make sure the VTR is securely fixed to the camera.



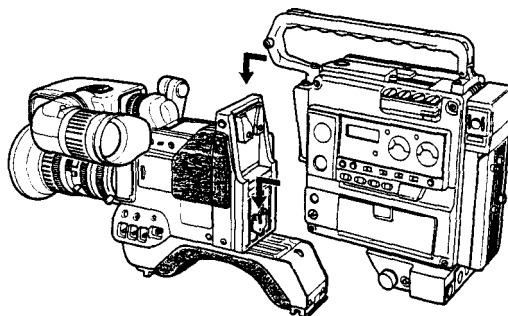
7. Mounting of the Betacam Format VTR

7-1 Mounting the optional VTR Adaptor WV-VT16A

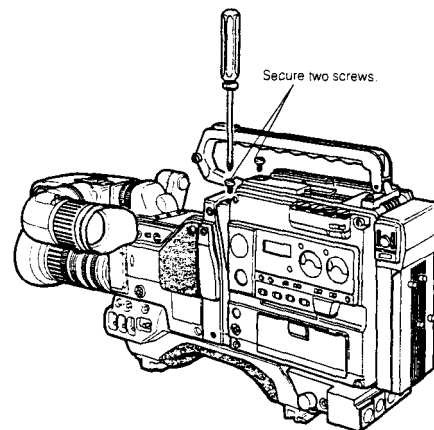
Mount the VTR Adaptor by connecting the 68-pin connector on the camera and the VTR Adaptor, and engage the lock mechanism of the VTR Adaptor and the camera head. Then tighten two VTR Adaptor Holding Knobs firmly and make sure the VTR Adaptor is securely fixed to the camera.



7-2 Mount the VTR on the VTR adaptor while engaging the connectors and lock mechanism



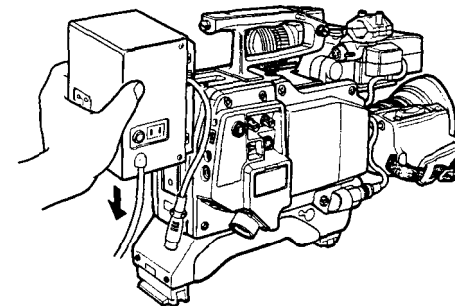
7-3 Secure the VTR with two screws which come with the VTR.



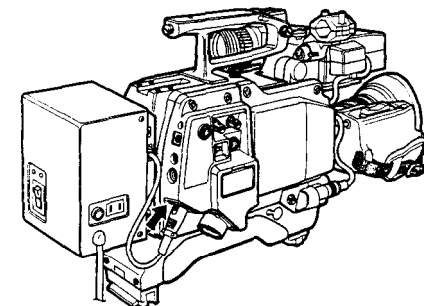
8. Installation of the AC Adaptor/Charger WV-PS34

When the AC Adaptor/Charger, WV-PS34, is used with the ENG/EFP Colour Camera as an AC Adaptor, this installation procedure should be followed:

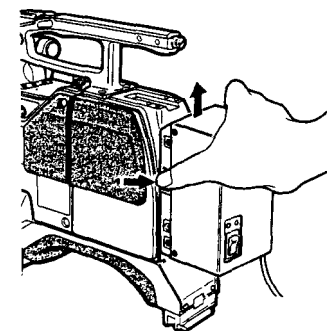
8-1 Install the AC Adaptor/Charger on the rear of the camera by matching the recesses in the AC Adaptor/Charger with the rails on the camera and then sliding it down the rails.



8-2 Connect the 4-pin cable to the 4-pin external DC Input connector on the camera.

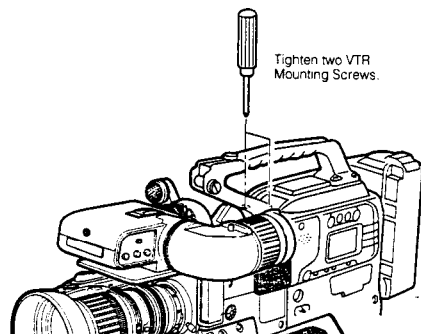


8-3 When removing the AC Adaptor/charger, disconnect the 4-pin cable and remove the AC Adaptor/Charger by sliding it up while pressing the Release Button

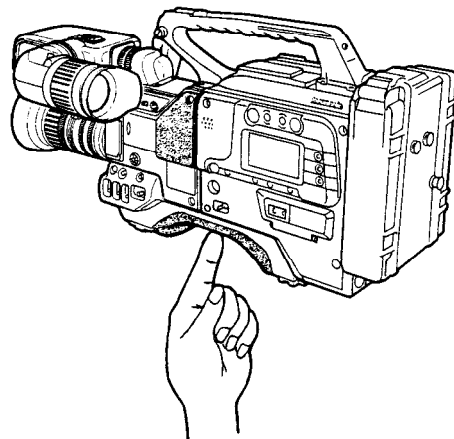


9. Removing the VTR from the Camera

9-1 Loosen two VTR Mounting Screws on the VTR Handle.



9-2 While pressing up on the VTR Release Button, remove the VTR from the camera



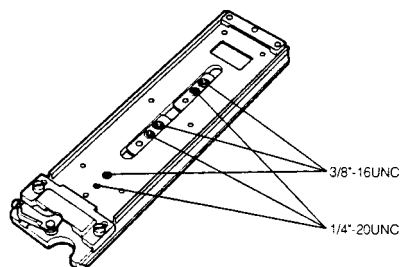
10. Mounting on the Tripod Mounting Adaptor

10-1 Mount the Tripod Mounting Adaptor on the tripod by matching one of the mounting holes (1/4" - 20 UNC or 3/8" - 16 UNC) on the Tripod Mounting Adaptor with the Tripod Mounting Screw, and securing the Tripod Mounting Adaptor with the mounting screw on the tripod.

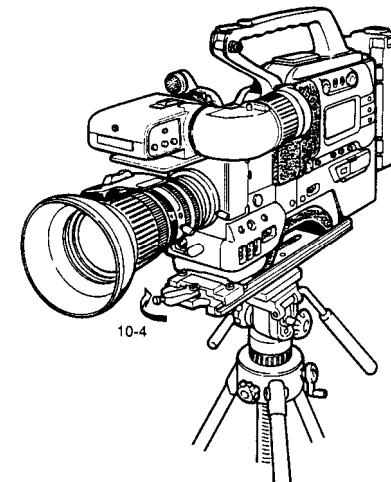
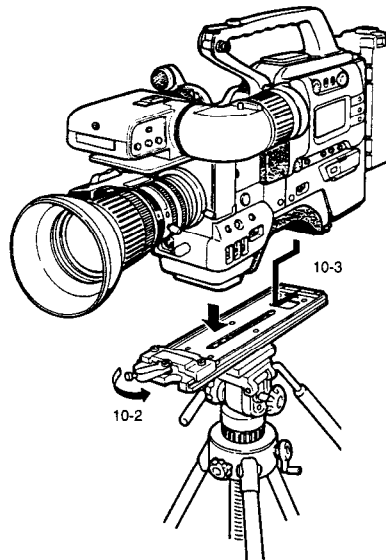
10-2 Mounting the Camera on the Tripod Mounting Adaptor

While pressing the Release Button (241) on the Lock Lever (242) of the Tripod Mounting Adaptor, unlock the lock lever by turning it counterclockwise as shown in the illustration

10-3 Place the camera on the Tripod Mounting Adaptor and make sure the protusion at the rear of the camera is properly engage with the slot at the rear of the Tripod Mounting Adaptor

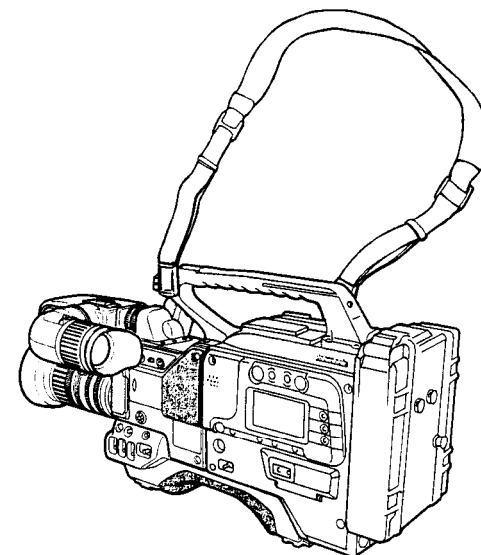


10-4 Turn the Lock Lever (242) of the Tripod Mounting Adaptor clockwise, as shown in the illustration. Make sure the camera is securely held and that it is in its back-most position in the adaptor



11. Attaching the Shoulder Strap

Attach the shoulder strap to the camera/recorder system as shown below.



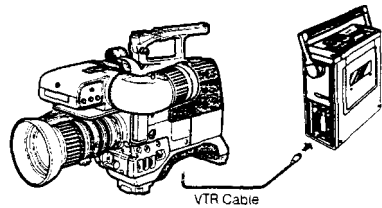
SYSTEM CONNECTION

CAUTION: Keep the power switches of all units in the OFF position during connections.

A. ENG Application

1. Connection with the VTR

Connect the VTR cable between the camera and the Panasonic portable colour VTR (The standard VTR cable length is 3m (10 ft).
Portable VTR with 14-pin camera connector
VTR cable WV-CA26A/14 (26P-14P cable)
Portable VTR with 26-pin camera connector
VTR cable WV-CA26A/26 (26P-26P cable)



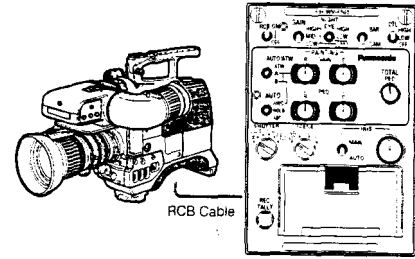
2. Connection with the Remote Control Box

Connect the Remote Control Box Connector (37) on the Camera Head to the Remote Control Unit Extension Connector (156) on the Remote Control Box by using the optional RCB Cable WV-CA10B02, WV-CA10B25 or WV-CA10B50

Note: In the following system connection, the video signal from the Monitor Output Connector (36) on the Camera Head has priority of the video signal over the Monitor Output Connector (154) on the Remote Control Box, so the picture is not displayed on the monitor connected to the Remote Control Box

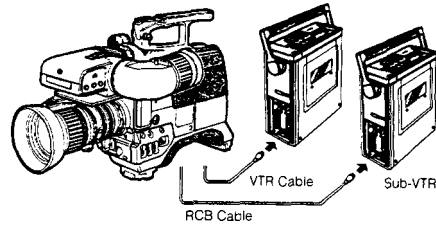
The decrement of the video signal for the cable length is shown in the following table

The cable length	Decrement
2 m.	Approx. 10%
25 m.	Approx. 15%
50 m.	Approx. 20%
100m.	Approx. 30%



3. Connection with a sub-VTR (back-up VTR)

Connect the sub-VTR's camera connector to the Camera's 10-pin Remote Control Box Connector



Notes:

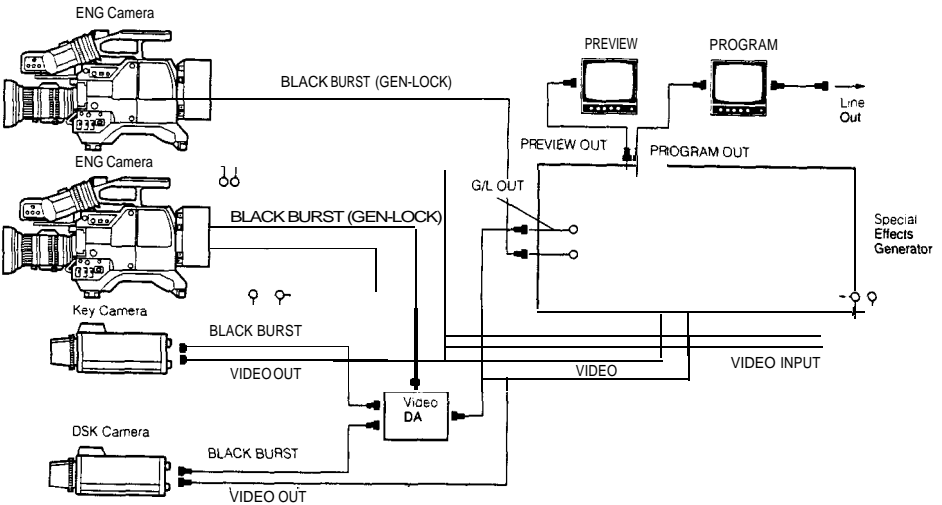
- 1 Only video signal, audio signal (-2.0 dB) and start/stop signal are sent to the sub-VTR
- 2 The extension cable length for the sub-VTR is up to 10m (30 ft).
- 3 In the above system connection, the video signal from the Monitor Output Connector (36) on the Camera Head takes priority over the video signal from the Monitor Output Connector (154) on the Remote Control Box.
So, the picture is not displayed on the monitor connected to the Remote Control Box.

B. Gen-lock EFP Application

- 1 Connect a coaxial cable for the gen-lock signal between the Gen-lock Input Connector (51) (BNC-type) on the Camera Adaptor and the Black Burst Output Connector on the production system, such as the Special Effects Generator.
- 2 Connect the coaxial cable for the video output signal between the Monitor Output Connector (36) (BNC-type) on the camera and the Video Input Connector on the production system.

Notes:

- 1 The Subcarrier Phase Coarse and Subcarrier Phase Fine as well as the Horizontal Phase on the camera should be set to match the other cameras in the system. Refer to page 49 for details
- 2 Refer to the operating instructions accompanying the Special Effects Generator for further details.
- 3 Do not connect the coaxial cable for the gen-lock signal to the Gen-lock Input Connectors (51) on the Camera Head and on the Camera Adaptor simultaneously.



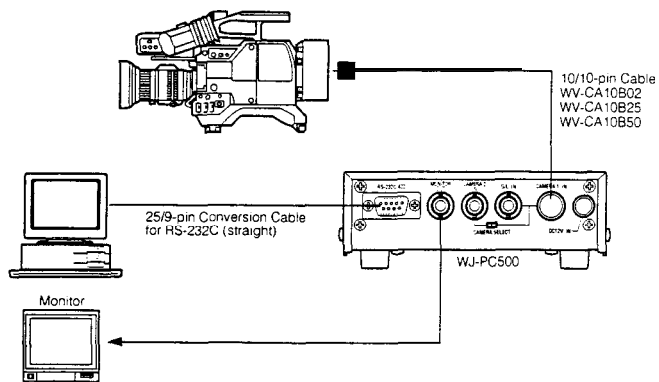
C. Studio Application

- 1 Connection with the Remote Control Unit by the 26-pin multi-cable
Connect the 26-pin studio cable between the camera and the Remote Control Unit (RCU)
- 2 Connection with the Remote Control Unit by the coaxial cable
Connect a coaxial cable between the Multiplex Signal Connector (50) on the Camera Adaptor and the Multiplex Connector (151) on the Remote Control Unit.

D. PC Mode System

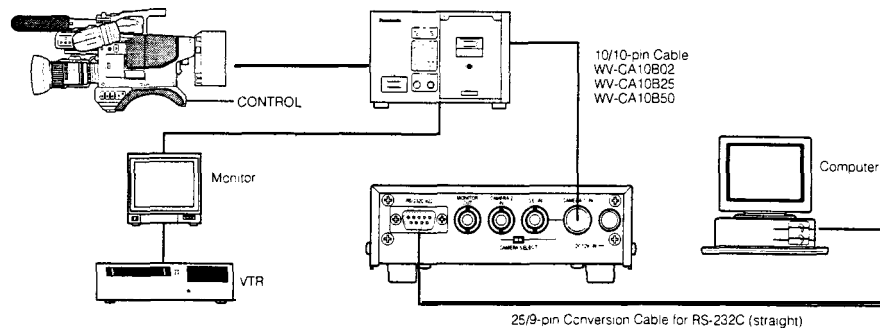
Precaution: The specified software should be required for this operation. Please contact with qualified service personnel for this operation.

PC Mode System 1



Connect the WV-CA10B02, WV-CA10B25 or WV-CA10B50 10/10-pin cable between the Remote Control Box Connector (37) on this camera and Camera 1 Input Connector on the WJ-PC500

PC Mode System 2



Connect the WV-CA10B02, WV-CA10B25 or WV-CA10B50 10/10-pin conversion cable between the Camera 1 Input Connector on this unit and the Remote Control Box Connector on the Remote Control Unit.
Connect the 25/9-pin conversion cable between the RS-232C/422 Connector on this unit and the computer

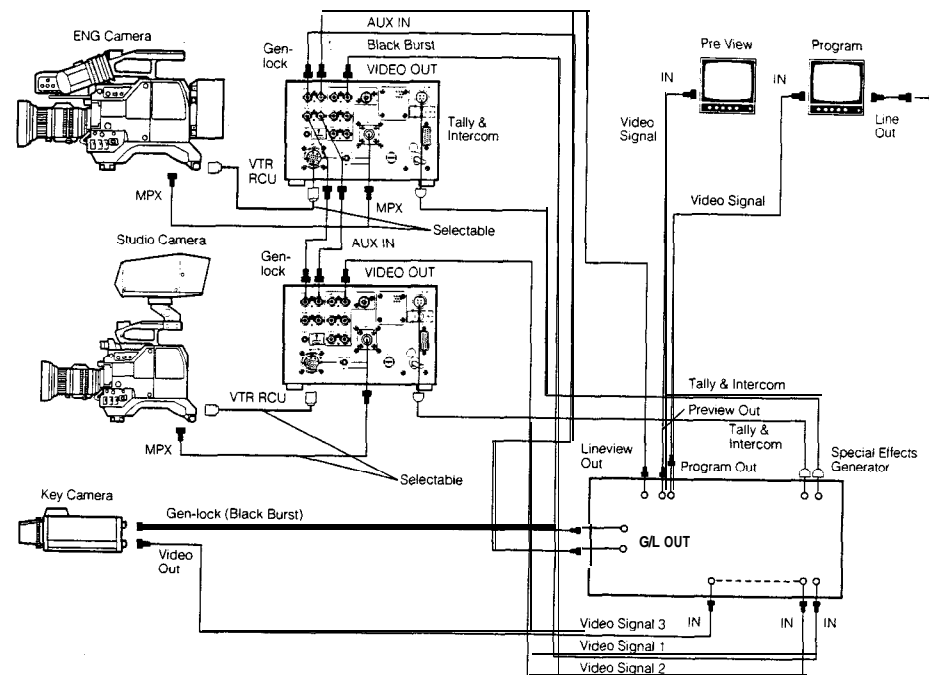
E. Gen-lock Studio Application

- Connect a coaxial cable for the gen-lock signal between the black burst output on the production system and Gen-lock input Connectors (143) or (203) on the RCU. (The signal may be bridged or looped through to another RCU.)
- Connect the coaxial cable for the lineview signal between the effect output connector on the production system and the Auxiliary Input Connector (144) or (204) on the RCU. (The signal may be bridged or looped through to another RCU)

Notes:

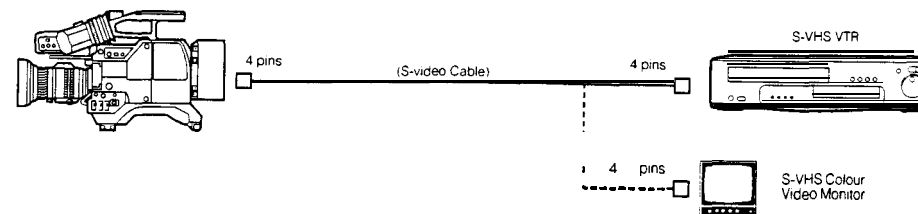
1. The Tally light and Intercom between the camera, RCU and Special Effects Generator will function only when the 4-pin cable for the Tally light and Intercom is connected between the RCU and Special Effects Generator.
2. The 26-pin studio cable can be extended up to a maximum of approx 300m (1000 ft). When extending the cable, be sure to Set the Cable Length Compensation Switch (115) to the position matching the extension length
3. The Subcarrier Phase Coarse and Fine Controls (139) and the Horizontal Phase Control (138) or (198) on the RCU should be set to match other cameras in the system. Refer to page 54 for details.
4. Be sure to Set the Cable Selection Switches (73) on the Camera Adaptor and (152) or (201) on the Remote Control Unit to MULTI position, if using the 26-pin multicore studio cable

- The MPX mode is available when connecting the Camera Adaptor AW-AD700BSE

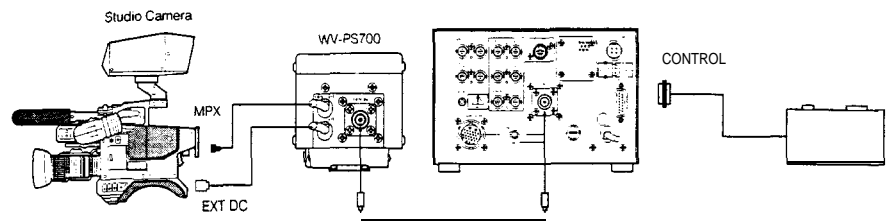


Notes:

1. When using the MPX mode by connecting the AW-AD700BSE, INCOM. AUX and R/G/B outputs are not functioned
2. When the Colour Camera AW-F575E is connected to a desk-top type S-VHS VTR or directly to the video monitor for S-VHS format, the S-VHS cable (S-video cable) is required.



F. VP Multiplex SyStem



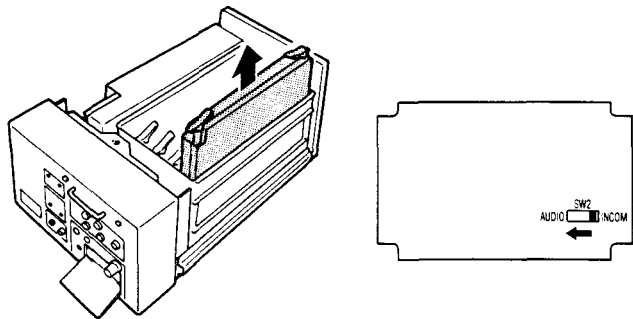
Precaution

In gen-lock operation in a video power (VP) multiplex system with a single coaxial cable, the camera may become out of synchronization depending on the waveform distortion of the burst signal that serves as a gen-lock signal

- Connect the Multiplex Output Cable on the WV-PS700 to the Multiplex Signal Connector on the AW-AD700BSE.
 - Connect the Power Cable on the optional Power Separator WV-PS700 to the External DC Input Connector on the AW-AD700BSE
 - Connect the coaxial cable between the Multiplex Input Connector on the Power Separator WV-PS700 and the Multiplex Connector on the RCU
 - To control the Zoom or focus function of lens, connect the Control Cable on the lens having the Focus or Zoom function to the Lens Connector on AW-AD700BSE.
- And then connect the multicable between the WV-RC700A and lens control unit

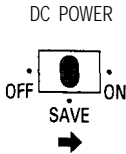
Notes:

- 1 The optional Power Separator WV-PS700 and the Camera Adaptor AW-AD700BSE are required to supply the power to the camera from this unit
- 2 The optional studio cable (26-pin) cannot be used in the VP multiplex system simultaneously
- 3 In this system, R/G/B, Y/C, Y/PR/PB and Aux cannot be supplied.
- 4 Be sure to set the Cable Selection Switch on the Camera Adaptor AW-AD700BSE to the MPX position and the Cable Selection Switch on the RCU to the VP position.
- 5 After turning on the power of this unit and camera head, it takes approximately 8 seconds to control the camera
- 6 When the Camera Adaptor AW-AD700BSE is used in the above system, the following items are not available
 - a. Bidirectional Inter Communication
 - b. Audio Output
 - c. Zoom, or Focus Control
 - d. Pan/Tilt Control
- 7 Pan/Tilt Control Signal Input to the Control Connector on the RCU is output from Control Connector on AW-AD700BSE.
- 8 For the Audio function, set the Switch 2 on the MOD board Inside this unit as shown below



OPERATING PROCEDURE FOR CAMERA RECORDER APPLICATION

1. Turn on the Power Switches on the camera and VTR.



Power Switch		Power Indicator	Operating mode of Dockable VTR/ camera	Operating mode of Portable VTR (SAVE is built-in)	Dperating mode of Sub-VTR	
VTR	CAM				Power	Operating condition
OFF		lights off	Power off		ON (operated from VTR.)	
SAVE		lights green	VTR: The tape loading is released and the power is saved. Camera: The heater of the viewfinder's CRT is on.	The tape loading is released and the power is saved.		In the recording mode, the recording is stopped.
ON		lights red	The power of VTR and camera are turned on	power on		The recording mode is controlled by the VTR Start/stop Button.

Notes:

- 1 When the power of the camera is turned off from on, the sub-VTR is put in the recording stop mode from the recording start/stop mode
Then the recording Start/Stop is controlled the operating switch on the VTR
When the power of the camera is turned on from off, the recording is stopped by setting the operating switch on the VTR to the recording start mode
Then the recording start/stop mode is controlled by the VTR Start/Stop Button on the camera.
 - 2 When pressing the VTR Start/Stop Button after setting the Dockable VTR to ON → SAVE → ON, the recording start/stop mode is reversed.
 - 3 When turning off the power of the AU-45H in the camera recorder system, the power off control from the camera side is not available.
2. Insert a cassette in the VTR
 3. Set the switches on the camera as follows:

Switches	Positions
High Gain Selection Switch (29)	0 dB
Colour Bar/Night Eye/Camera Selection Switch (27)	CAMERA
Iris Control Selection Switch (88) on lens	A (Auto)
Lens Iris Selection Switch (7)	NOR (Normal)
Scene File Selection Switch (10)	Scene 1

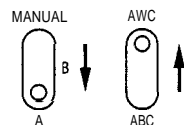
Note: Set these switches to the most suitable position according to shooting conditions

- Select the proper CC filter according to the colour temperature at the scene, using the Filter Selection Wheel (31) while referring to the Table on page 58
- Set the black balance as follows:
Set the Auto White/Auto Black Set Switch (6) to the ABC position momentarily by pressing it down. The lens iris is automatically closed and the black balance is set automatically.



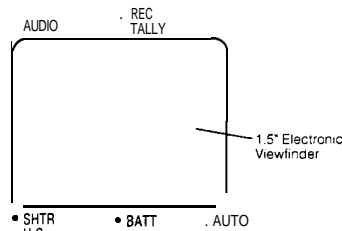
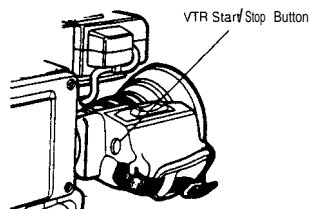
When the black balance has been set, the lens iris returns automatically to its previous position. The Auto Warning Indicator in the viewfinder blinks while the black balance is being set and it goes off when the black balance has been correctly set. While the black balance is being set, ABC also blinks in the viewfinder screen, and ABC OK appears when the setting is completed. After a few seconds, ABC OK disappears from the screen. If the Auto Warning Indicator remains lit and ABC NG appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to 'Setting the Black Balance' on page 56 for details

- Set the white balance as follows.
Set the White Balance Selection Switch (28) to either A or B position (stored in appropriate memory). While aiming the camera at a white object, e.g. gray scale chart or white paper, set the Auto White/Auto Black Set Switch (6) to the AWC position momentarily by pressing it up.
Pay attention so that the light source or reflected light from metallic objects does not come in the view
The white balance is automatically set



When the white balance has been set, the blinking Auto Warning Indicator in the viewfinder goes out and the blinking AWC A or AWC B in the viewfinder screen turns into AWC A OK or AWC B OK, respectively. This indication disappears after a few seconds.
If the Auto Warning Indicator remains lit and AWC A NG or AWC B NG appears in the viewfinder screen, the white balance adjustment should be carried out once more. However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly. Refer to 'Setting the White Balance' on page 57 for details

- Confirm the flange-back adjustment of the lens. If it is not correctly set, readjust the flange-back
- Adjust the audio level of the microphone.
Turn the Audio Input Level Control (24) on the Camera Head to clockwise for increasing the audio level.
- Confirm the audio level on the level meter of the VTR or in the viewfinder
- If the electronic shutter operation is desired, turn on the Electronic Shutter On/Off Switch (11) to select the appropriate shutter speed
- The camera's condition may be confirmed by pressing the Check Button (25) while a normal picture is being viewed. Refer to 'Character Display' on page 67 for details.
- Aim the camera at the scene to be recorded and adjust the focus and zoom of the lens accordingly
- Press the VTR Start/Stop Button (92) on the lens or (5) on the camera. The Recording/Tally Indicator in the viewfinder, the Tally Light (101) on the front of the viewfinder light and the Top Tally lights while recording is in progress



- Press the VTR Start/Stop Button to stop recording when this is desired. The Recording/Tally Indicator and the Tally Light and Top Tally go out.
To resume recording, simply press the VTR Start/Stop Button again
- After recording, you may review the picture in the viewfinder
 - Press the VTR Start/Stop Button and reverse the cassette tape
 - Set the VTR in the Play mode and press the Return Video Button (90) on the lens

OPERATING PROCEDURE FOR ENG/EFP APPLICATION

1. ENG Application

- Make all required connections.
- Remove the Lens Cap
- Select the power source according to the table below

Case	Camera Power	Portable VTR Power	Connections
1	Battery Pack	Internal Battery	
2	AC Adaptor	Internal Battery or AC Adaptor	
3	External DC	Internal Battery or AC Adaptor	
4	Supplied from VTR	AC Adaptor	

Notes:

- In case 4, the optional VTR Cable WV-CA26A26, WV-CA26A14 should be used
- It is not recommended to supply camera power from the built-in battery in the portable VTR since recording time would be much too short in this case

- In case 4, the AC Adaptor should have sufficient capacity to power both the camera and the VTR.
- The power of camera is turned on/off automatically by the power supply connector
The order of priority for the power supply connectors is as follows:
4-pin D C Connector > Battery Jack > 26-pin Connector

- Set the switches of the camera according to the VTR it is connected to

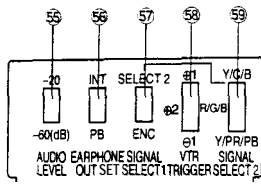
Case NO.	Portable VTR Used	VTR Compatibility Switch (58)	Audio Level Selection Switch (55)	Earphone Selection Switch (56)	VTR Video output Selection Switch 2 (59)	VTR Video output Selection Switch 1 (57)
1	1/2" or 3/4" portable VTR with 10-pin camera connector	⊕ 1 (Note 2)	-20 dB	INT	R/G/B	ENC
2	3/4" portable VTR with 14-pin camera connector	⊕ 2	-60 dB	PB	R/G/B	ENC
3	1/2" portable S-VHS VTR with 14-pin camera connector	⊕ 2	-20 dB	PB	Y/C/B	SELECT2
4	Mini portable VTR with 26-pin camera connector	⊕ 2	-60 dB	PB	Y/P R/P B	SELECT 2

Notes:

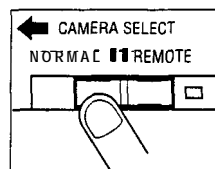
- If the VTR Video Output Selection Switch 1 or 2 is not set to the correct position, picture recording is not possible

- If the VTR is from a manufacturer other than Panasonic and it pauses while it should be recording, and vice versa, set the VTR Compatibility Switch (58) to the position 1

3. Some VTR's may not operate properly even though they are correctly connected to this camera. Please contact your dealer for detailed information.



- (5) Turn the camera and the portable VTR on and set the portable VTR to the RECORD mode
(a) For portable VTRs with a Camera Select switch, such as Panasonic VTR AG-6400
Set the Camera Select switch on the VTR to NORMAL position.

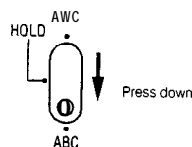


- (b) For other portable VTRs without a Camera Select Switch:
- Press the Recording and Play button together
(6) Select the proper filter according to the colour temperature at the scene, using the Filter Selection Wheel (31) while referring to the Table on page 58
(7) Set the switches as follows

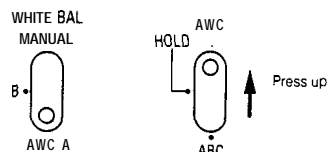
Switches	Positions
High Gain Selection Switch (29)	0 dB
Colour Bar/Night Eye/Camera Selection Switch (27)	CAMERA
Iris Control Selection Switch (88) on lens	A (Auto)
Lens Iris Selection Switch (7)	NOR (Normal)
Scene File Selection Switch (10)	Scene 1
Power Switch (26)	ON

Note: Set these switches to the most suitable position, according to Shooting condition

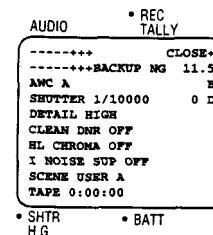
- (8) Set the black balance as follows:
Set the Auto White/Auto Black Set Switch (6) to the AWC position momentarily by pressing it down. The lens iris is automatically closed and the black balance is set automatically. When the black balance has been set, the lens iris automatically returns to its previous position. The Auto Warning Indicator blinks while the black balance is being set and it goes off when the black balance has been correctly set. While the black balance is being set 'ABC' also blinks in the viewfinder screen and 'ABC OK' appears when the setting is completed. After a few seconds 'ABC OK' disappears from the screen.
If the Auto Warning Indicator remains lit and 'ABC NG' appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to 'Setting the Black Balance' on page 56 for details



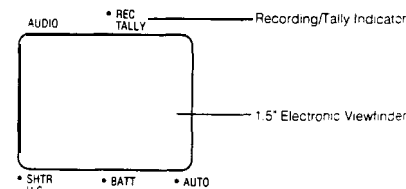
- (9) Set the white balance as follows:
Set the White Balance Selection Switch (28) to the AWC A or AWC B position
While aiming the camera at a white object, e.g. white paper or a white Wall, set the Auto White/Auto Black Set Switch (6) to the AWC position momentarily by pressing it up. The white balance is automatically set. When the white balance has been set, the blinking Auto Warning Indicator in the viewfinder screen goes out and the blinking 'AWC A' or 'AWC B' turns into 'AWC A OK' or 'AWC B OK', respectively. This Indication disappears after a few seconds. If the Auto Warning Indicator remains lit and 'AWC ANG' or 'AWC BNG' appears in the viewfinder screen, the white balance adjustment should be carried out once more. However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly. Refer to 'Setting the White Balance' on page 57 for details



- (10) Confirm the flange-back adjustment of the lens as follows:
- Aim the camera at a dark object more than 2m (6 ft) from the camera.
- Zoom in (from wide-angle to tele) with the Servo Zoom Control (89) and adjust the lens focus with the Focus Ring (95)
- Zoom out (from tele to wide-angle) and confirm that the picture is in focus. If not, the flange-back of the lens should be adjusted according to the Instructions in 'Lens Flange-back Adjustment' on page 54
(11) The system condition may be confirmed by pressing the Check Button (25) while a normal picture is being viewed. Refer to 'Character Display' on page 67 for details.



- (12) Zoom In/out with the Servo Zoom Control (89) or Zoom Ring/Lever (96) until the desired composition is achieved
(13) Turn the Focus Ring (95) until the object is in sharp focus by watching the picture in the viewfinder
Close-up (macro) shooting.
After setting the Servo Zoom Control (69) to the WIDE position, turn the Macro Ring/Button (100) to the macro range while pressing the Macro Ring/Button (100)
In the macro mode, objects as close as 50 mm (2") from the lens surface can be recorded
(14) Press the VTR Start/Stop Button (5) or (92) on the camera or (92) on the lens. The Recording/Tally indicator in the viewfinder, on the rear of the camera, the Tally light on the front of the viewfinder light and the Top Tally lights while recording is in progress.



- (16) Press the VTR Start/Stop Button (5) or (92) to Stop recording when this is desired. The Recording/Tally Indicator and the Tally light go out
To resume recording, simply press the VTR Start/Stop Button (5) or (92) again.
(16) After recording, you may review the picture in the viewfinder. Press the Stop button on the recorder, rewind the tape to the beginning of the recording and start playback
The played back picture can be observed on the viewfinder screen and the sound can be monitored in one of the following manners.

	VIDEO	AUDIO
3/4" VTR with 14-pin camera connector	Can be confirmed by pressing the Return Video Button on the lens.	Can be monitored through the Earphone Jack.
3/4" VTR with 10-pin camera connector 1/2" VHS VTR ...	Can be confirmed by automatic switching.	Can be monitored through Audio Output on VTR.

2. Gen-lock Application

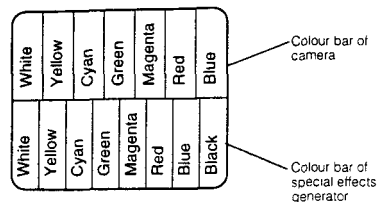
- (1) Make all required connections
(2) Set the switches as follows

Switches	Positions
High Gain Selection Switch (29)	0 dB
Colour Bar/Night Eye/Camera Selection Switch (27)	BAR
Iris Control Selection Switch (88) on lens	A (Auto)
Lens Iris Selection Switch (7)	NOR (Normal)
Scene File Selection Switch (10)	Scene 1
Power Switch (26)	ON

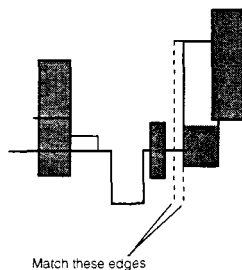
Note: Set these switches to the most suitable position, according to Shooting conditions.

(3) Adjust the horizontal phase of the camera as follows:

- Set the switches and controls on the Special Effects Generator so that the Split colour bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator



- Connect an oscilloscope to the Program Output Connector of the Special Effects Generator and check the horizontal blanking period of the Program Output Signal.
- Adjust the Horizontal Phase so that the phase of the horizontal blanking of the Colour bar Signal from the camera matches that for the Special Effects Generator

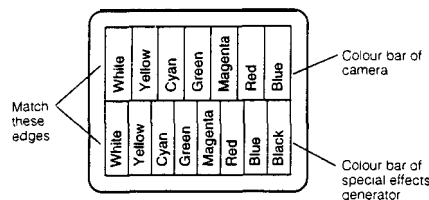


- The horizontal phase of the camera can be roughly adjusted by observing the split colour bar picture of the program monitor after all switches and controls have been correctly set. Adjust the Horizontal Phase so that the edges of the colour bar of the camera and Special Effects Generator roughly match each other.

Notes:

- 1 The horizontal phase as well as the subcarrier phase explained in the next paragraph should be readjusted if the connections or coaxial cable length is changed in the system
- 2 Refer to Horizontal Phase Adjustment on page 55

Underscanned Monitor



(4) Adjust the subcarrier phase of the camera as follows

- Set the switches and controls on the Special Effects Generator so that the split colour bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator for details.
- Adjust the Subcarrier Phase Coarse and Subcarrier Phase Fine on the initial set menu so that the colours of the colour bars from the camera are similar to the colours of the colour bars generated by the Special Effects Generator.
- For precise adjustment, the use of a vectorscope is recommended. In this case, supply the Program Output signal from the Special Effects Generator to the vectorscope. While observing the vectorscope, adjust the Subcarrier Phase Coarse and Subcarrier Phase Fine on the initial set menu so that the phase of the colour bars from the camera matches that of the bars generated by the Special Effects Generator
- Refer to ADJUSTMENT on page 55 for phase coarse and phase fine adjustment

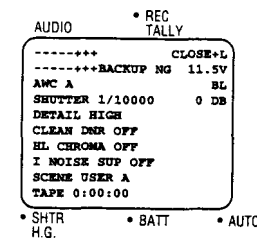
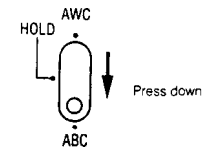
(5) Reset the Colour Bar/Night Eye/Camera Selection Switch (27) from the BAR to the CAMERA position

(6) Select the proper filter according to the colour temperature at the scene, using the Filter Selection Wheel (31) while referring to the Table on page 58

(7) Set the black balance as follows:

Set the Auto White/Auto Black Set Switch (6) to the ABC position momentarily by pressing it down. The lens iris is automatically closed and the black balance is set automatically. While the black balance has been set, the lens iris automatically returns to its previous position. The Auto Warning indicator blinks while the black balance is being set and it goes off when the black balance has been correctly set. While the black balance is being set, 'ABC' also blinks in the viewfinder screen, and 'ABC OK' appears while the setting is completed. After a few seconds 'ABC OK' disappears from the screen

If the Auto Warning indicator remains lit and 'ABC NG' appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to 'Setting the Black Balance' on page 56 for details

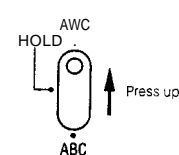
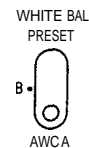


(8) Set the white balance as follows:

Set the White Balance Selection Switch (28) to the AWC A or AWC B position.

While aiming the camera at a white object, e.g. white paper or a white wall, set the Auto White/Auto Black Set Switch (6) to the AWC position momentarily by pressing it up. The white balance is automatically set. When the white balance has been set, the blinking Auto Warning Indicator in the viewfinder screen goes out and the blinking 'AWC A' or 'AWC B' turns into 'AWC A OK' or 'AWC B OK', respectively. This indication disappears after a few seconds.

If the Auto Warning indicator remains lit and 'AWC A NG' or 'AWC B NG' appears in the viewfinder screen, the white balance adjustment should be carried out once more. However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly. Refer to 'Setting the White Balance' on page 57 for details.



(9) Confirm the flange-back adjustment of the lens as follows:

- Aim the camera at a dark object more than 2m (6 ft) from the camera
- Zoom in (from wide-angle to tele) with the Servo Zoom Control (89) and adjust the lens focus with the Focus Ring (95).
- Zoom out (from tele to wide-angle) and confirm that the picture is in focus. If not, the flange-back of the lens should be adjusted according to the instructions of 'Lens Flange-back Adjustment' on page 54

(10) The system condition may be confirmed by pressing the Check Button (25) while a normal picture is being viewed. Refer to 'Character Display' on page 67 for details

(11) Zoom In/out with the Servo Zoom Control (89) or Zoom Ring/Lever (96) until the desired composition is achieved.

Turn the Focus Ring (95) until the object is in sharp focus by watching the picture in the viewfinder

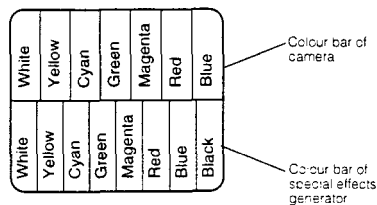
Close-up (macro) shooting.

After setting the Servo Zoom Control (89) to the WIDE position on the Macro Ring/Button (100) to the macro range while pressing the Macro Ring/Button (100) in the macro mode, objects as close as 50 mm (2") from the lens surface can be recorded

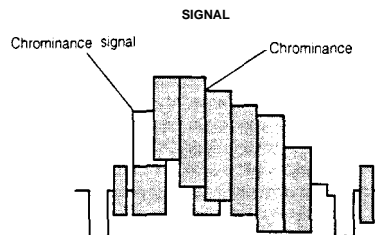
1. Make sure all required connections are properly Set
2. Set the switches as follows:

Control Selection		
Unit	Switches	Positions
	White Balance Selection Switch (28)	AWC A or AWC B
	Lens Iris Selection Switch (7)	NOR (Normal)
camera	Iris Selection Switch (88) on lens	A (Auto)
	Detail Level Selection Switch (20)	HIGH
	Power Switch (54)	VTR/RCU
	Power Switch (26)	ON
	High Gain Selection Switch (119) or (174)	0 dB
	Colour Bar/Camera Selection Switch (121) or (176)	BAR
CU	White Balance Selection Switch (126) or (180)	AWC A or AWC B
	Lens Iris Selection Switch (128) or (186)	AUTO
	Power Switch (111) or (171)	ON

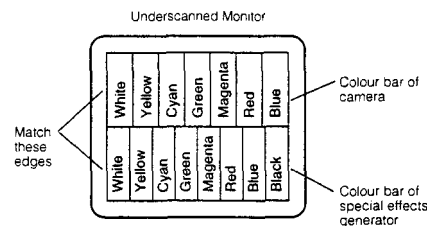
3. Set the Cable Length Compensation Switch (115) or (195) on the RCU according to the length of studio cable used.
4. Fine-adjust the luminance gain and chroma gains as follows:
 - Set the switches and controls on the Special Effects Generator so that the split colour bar picture is observed on the program monitor. Refer to the operating instructions accompanying the Special Effects Generator.



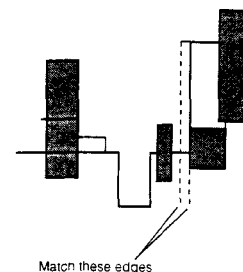
- Connect an oscilloscope to the Program Output Connector of the Special Effects Generator or feed the Program Output signal to a waveform monitor. Observe the horizontal period of the Program Output Signal.
- Adjust the Luminance Gain Fine Control (113) or (194) so that the luminance signal level of both colour bar signals are equal. Adjust the Chroma Gain Fine Control (114) or (193) so that the chrominance signal levels of both colour bar signals are equal.



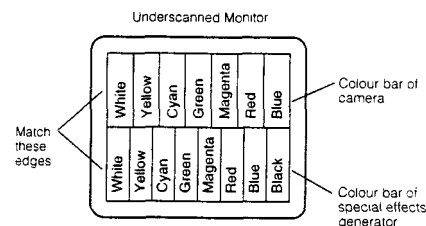
5. Adjust the horizontal phase of the camera as follows:
 - Set the switches and controls on the Special Effects Generator so that the split colour bar picture is observed on the program monitor. Refer to the operating Instructions accompanying the Special effects Generator.



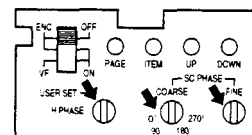
- Connect an oscilloscope to the Program Output Connector of the Special Effects Generator and check the horizontal blanking period of the Program Output signal.
- Adjust the Horizontal Phase Control for Gen-lock (138) or (198) on the RCU so that the phase of the horizontal blanking of the colour bar signal for the camera matches that of the Special Effects Generator



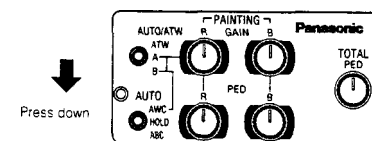
- The horizontal phase of the camera can be roughly adjusted by observing the split colour bar picture on the program monitor after all switches and controls have been correctly set. Adjust the Horizontal Phase Control for Gen-lock (138) or (198) so that the edges of the colour bar of the camera and Special Effects Generator roughly match each other
- Note: The horizontal phase as well as the subcarrier phase explained in the next paragraph should be readjusted if the coaxial cable length is changed on the system



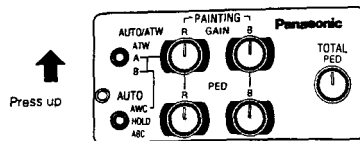
- 6. Adjust the subcarrier phase of the camera as follows,
 - Set the switches and controls on the Special Effects Generator so that the split colour bar picture is observed on the program monitor. Refer to the operating Instructions accompanying the Special Effects Generator for details.
 - Adjust the Subcarrier Phase Coarse and Fine Controls (139) or (197) on the RCU so that the colours of the colour bars from the camera are similar to the colours of the colour bars generated by the Special Effects Generator



- For precise adjustment, the use of a vectorscope is recommended. In this case, supply the Program Output signal from the Special Effects Generator to the vectorscope. While observing the vectorscope, adjust the Subcarrier Phase Coarse and Fine Controls (139) or (197) on the RCU so that the phase of the Colour bars from the Camera matches that of the bars generated by the Special Effects Generator.
- 7. Reset the Colour Bar/Camera Selection Switch (121) or (176) on the RCU from the BAR to the CAMERA position.
- 8. Select the proper filter according to the colour temperature at the scene, using the Filter Selection Wheel (31) on the camera while referring to the Table on page 50
- 9. Set the black balance as follows:
Set the Auto White/Auto Black Set Switch (127) or (178) on the RCU to the ABC position momentarily by pressing it down
The lens iris is automatically closed and the black balance is set automatically in approximately 10 seconds. After the black balance has been set, the lens iris automatically return to its previous position. The Auto Warning Indicator (129) or (179) on the RCU blinks while the black balance is being set and it shuts off when the black balance has been correctly set. While the black balance is being set, 'ABC' also blinks in the viewfinder screen, and 'ABC OK' appears when the setting is completed. After a few seconds, 'ABC OK' disappears from the screen.
If the Auto Warning Indicator remains lit and 'ABC NG' appears in the viewfinder screen, the black balance adjustment should be carried out once more. Refer to 'Setting the Black Balance' on page 56 for details.



10. Set the white balance as follows.
- Set the White Balance Selection Switch (126) on the RCU to the AWC A or AWC B position
 - While aiming the camera at a white object, e.g. a white paper or a white wall, set the Auto White/Auto Set Switch (127) or (178) on the RCU to the A position momentarily by pressing it up. The white is automatically set. After the white balance has been set the blinking Auto Warning indicator (129) on the RCU goes out and the blinking 'AWC A' or 'AWC B' in the viewfinder turns into 'AWC A OK' or 'AWC B OK', respectively. This indication disappears after a few seconds.
 - If the Auto Warning Indicator remains lit and 'AWC A NG' or 'AWC B NG' appears in the viewfinder, the white balance adjustment should be carried out once more. However, before proceeding with this adjustment, make sure the Filter Selection wheel is set correctly. Refer to 'Setting the WB' on p.57 for details.

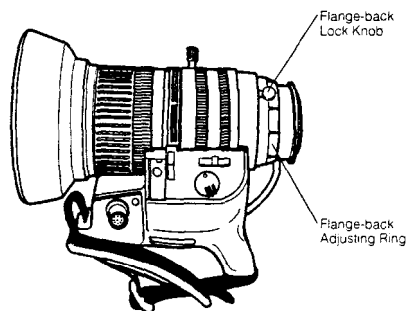


11. Confirm the flange-back adjustment on the lens as follows.
 - Aim the camera at a dark object more than 2m (6 f.) from the camera.
 - Zoom in (from wide-angle to tele) with the Zoom Ring/Lever (96) or the Servo Zoom Control (222) or (235) of the Lens Control Kit, and adjust the lens focus with the Focus Ring (95) or the Focus Controller (226) or (237) of the Lens Control Kit
 - Zoom out (from tele to wide-angle) and confirm that the picture is in focuss. If not, the flange-back of the lens should be adjusted according to the Instructions 'in 'Lens Flange-back Adjustmen' on page 54
12. Zoom in/out until the desired composition is achieved. Focus the lens until the object is in Sharp focus by watching the picture in the viewfinder

LENS FLANGE-BACK ADJUSTMENT

If the flange-back is not adjusted correctly, correct focusing cannot be maintained through the entire zoom range.

- Aim the camera at a dark object more than 2m (6 ft) away from the camera and loosen the Flange-back Lock Knob (96)
- Zoom in (from wide-angle to tele) with the Servo Zoom Control (69) and adjust the lens focus with the Focus Ring (95)
- Zoom out (from tele to wide-angle) and adjust the focus by turning the Flange-back Adjustment Ring (99).

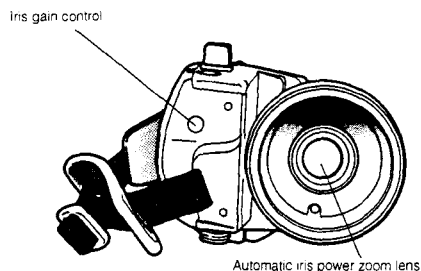


- Zoom in again and adjust the focus by turning the Focus Ring
- Newly, zoom out and, if necessary, adjust the focus with the Flange-back Adjustment Ring.
- Repeat this process until correct focus is maintained throughout the entire zoom range. When the adjustment has been completed, tighten the Flange-back Lock Knob.
- Once the flange-back of the zoom lens has been adjusted, no further adjustment is necessary unless the lens is changed.

IRIS GAIN CONTROL IN A LENS

An iris gain control hole is usually provided in the front of a lens. Adjustment of the iris gain, with a screwdriver through the hole may be done as follows: (Shape and location of the hole may vary depending on the lens make.)

- 1 Turn the iris selection switch to Position A (AUTO).
- 2 Rotate the iris gain control to the maximum gain but in a range where no hunting or oscillating of the irises ring develops.



AUTOMATIC IRIS ADJUSTMENT

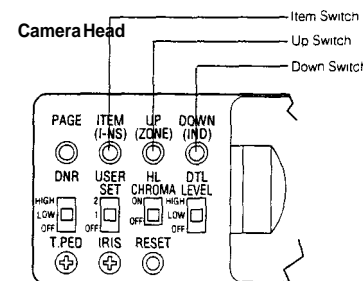
When install or change the lens, automatic iris adjustment should be done before operation. Refer to page 17 for the details

- **Automatic iris adjustment when lens is changed**
Turn power on while pressing the item (ITEM/AWC) switch. The lens iris is automatically opened and closed for automatic iris adjustment. It will be completed in around 30 seconds

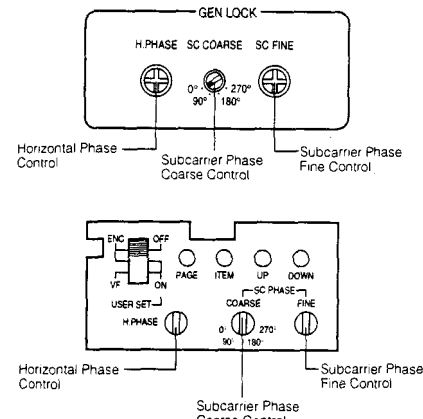
ADJUSTMENT

Gen-lock Adjustment

When using one or more cameras in a system which includes a special effect generator, a gen-lock adjustment is required.



RemoteControl Unit



Horizontal Phase Adjustment

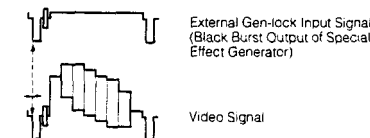
This should be adjusted so that the phase of the horizontal blanking of the colour bar signal from the camera matches that from the Special Effects Generator by adjustment with either the camera or RCU (RB) Controls

Adjustment with the Camera Controls:

- 1 Set the Scene File Selection Switch (10) to the position 1, 2 or 3
- 2 Set the Colour Bar/Night Eye/Camera Selection Switch (27) to the BAR position
- 3 Set the User Set Switch (16) to the position 1
Note: When Setting this switch to the position 2, black and white video signal is output.
- 4 Move the cursor onto the H PHASE by using the item Switch (14)
- 5 Adjust the Horizontal Phase by using the Up (15)/Down (16) Switch

Adjustment with RCU (RCB) Controls:

The horizontal phase of the camera signal can be adjusted by using the Horizontal Phase Control for Gen-lock (138) Inside the side cover of RCU (RCB)



Colour Phase Adjustment

This should be adjusted so that the colours of the colour bars from the camera are similar to the colours of the colour bars generated by the Special Effects Generator

Adjustment with Camera Controls:

1. Set the Scene File Selection Switch (10) to the position 1, 2 or 3
2. Set the Colour Bar/Night Eye/Camera Selection Switch (27) to the BAR position
3. Set the User Set Switch (18) to the position 1
Note: When Setting this switch to the position 2, black and white video signal is output.
4. Move the cursor onto the SC COARSE position by using the item Switch (14).
5. The Subcamer Coarse Control can be made by using the Up (15) and Down (16) Switch.
6. Move the cursor onto the SC FINE position by using the item Switch (14)
7. The Subcarrier Fine Control can be made by using the Up (15) and Down (16) Switch

Adjustment with RCU (RCB) Controls:

The Colour phase of the camera signal can be adjusted by using the SC Phase Controls for Gen-lock (139) or (197) inside the side cover of RCU (RCB)

SETTING THE BLACK BALANCE

1. Black Balance

Correct setting of the black balance is required for producing correct colours colour, specially in low light situations. Once the black balance has been correctly set, the setting is maintained in a special memory, for approximately 10 years. The setting will not be lost, even though camera power is turned off. However, for best results, it is recommended that the black balance adjustment be carried out if the camera has not been used for a long period of time.

2. Automatic Black Balance Setting

- Set the Iris Control Selection Switch (88) on the zoom lens and the Lens Iris Selection Switch (126) or (186) on the Remote Control Unit (RCU) to the A (auto) position and AUTO position, respectively

Note: If you need to set the black balance while in the manual iris control mode, the incoming light should be blocked by capping the lens.

- When the Auto White/Auto Black Set Switch (6) on the camera, (127) or (176) on the RCU is pressed down toward the ABC position for less than 2 seconds, black balance is set to LOW, MID, HIGH, Night Eye Low or Night Eye High.

The lens iris is closed, blocking incoming light, and the black balance is automatically set in approximately 5 seconds. When the black balance has been set, the lens iris returns to its previous position.

- In case of Pressing the above switch for more than 2 seconds, the black balance is set as shown in the following.

-6dB. 0dB. 3dB. 6dB. 9dB. 12dB. 16dB. 24dB. Night Eye Low. Night Eye High.

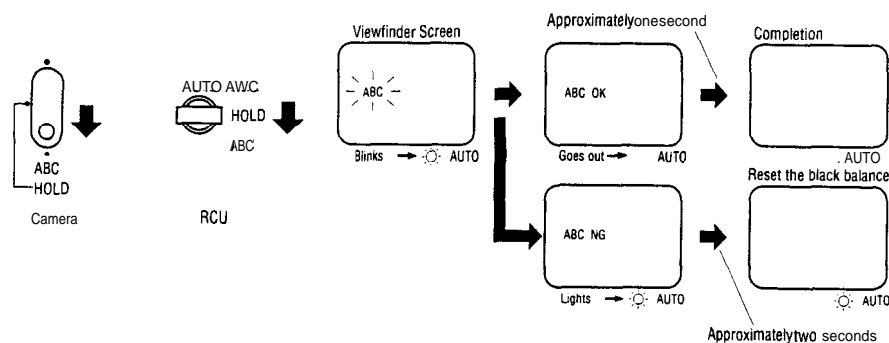
The Auto Warning Indicator in the 1.5" viewfinder and the Auto Warning Indicator (129) or (179) on the RCU blinks while the black balance is being set. The Indicators go out after the black balance has been set.

While the black balance is being set, 'ABC' blinks in the viewfinder, and 'ABC OK' appears when the black balance has been correctly set.

This Indication disappears after a few seconds.

If the Auto Warning indicators remain lit and 'ABC NG' appears in the viewfinder screen, the black balance adjustment should be carried out once more

- The black balance setting will be kept in the memory for approximately 10 years even if the power of the camera is turned off. It is recommended, however, that the black balance be reset if the camera has not been in use for a long time

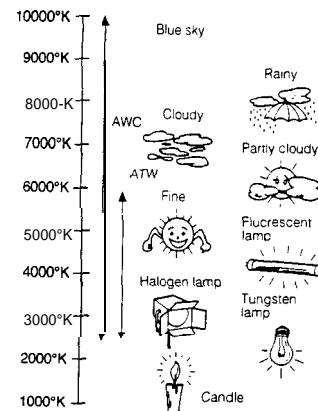


SETTING THE WHITE BALANCE

1. White Balance

- Light can be measured in terms of its colour temperature, stated in degrees Kelvin (°K). On a ranking scale, blue light has a higher colour temperature than reddish light. Thus, when the camera is aimed at an object illuminated by a light source having high colour temperature, the produced image will be somewhat bluish, while if the colour temperature is low, the image will turn reddish.

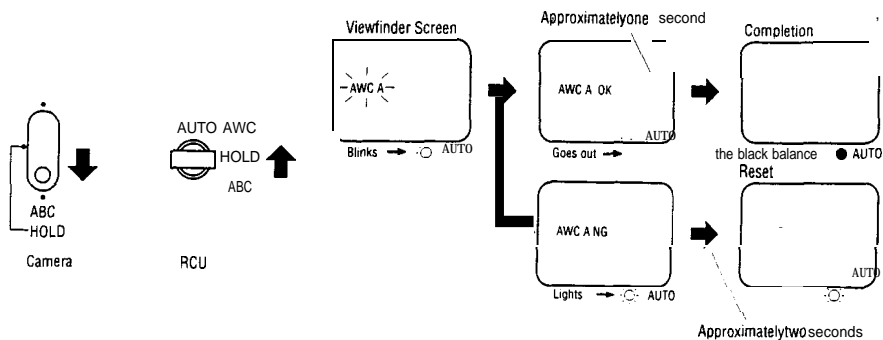
- In order to correctly reproduce the colours of the scene, the white balance should be set before recording is begun.



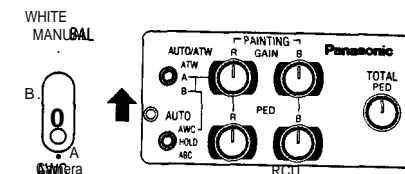
2. Automatic White Balance Setting

Note: Colour Temperature range in which automatic white balance control is possible. Approximately 2,200°K - 11,000°K using the Filter Selection Wheel (31).

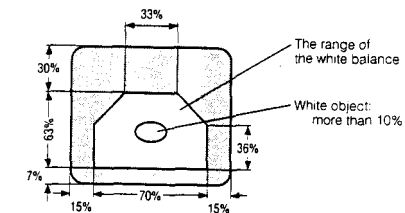
Two white balance settings, for two different light sources such as indoors and outdoors, can be kept in the A/B white balance memories, as follows:



- Set the White Balance Selection Switch (26) on the camera to the AWC A or AWC B position, if camera is in studio application, set the White Balance Selection Switch (126) or (160) on the RCU to the A or B position.



- Aim the camera at a white object, e.g. white paper or a white Wall, within the range of the white balance as shown in the following and make sure that at least 10% of the viewfinder screen is occupied by the white image



Set the auto white set Switch (6) on the camera, (127) or (178) on the RCU (in studio application) to the AWC position, momentarily by pressing it up.
 The white balance is automatically set in approximately 2 seconds. While the white balance is being set, the Auto Warning indicator in the 1.5" viewfinder and the Auto Warning Indicator (129) or (179) on the RCU blink. These indicators go out after the adjustment is completed. When the white balance has been correctly set, the blinking 'AWC A' or 'AWC B' in the viewfinder turns into 'AWC A OK' or 'AWC B OK', respectively. This indication disappears after a few seconds.
 If the Auto Warning Indicator remains lit and 'AWC A NG' or 'AWC B NG' appears in the viewfinder screen, the white balance adjustment should be carried out once more.
 However, before proceeding with the adjustment, make sure the Filter Selection Wheel (31) is set correctly

1. The white balance setting (as well as the black balance setting) will be kept in the memory for approximately 10 years even if the power to the camera is turned off (The memory backup battery will supply power for up to ten years.) It is recommended, however, that the white balance be reset if the camera has not been in use for a long period of time.
 The white balance should also be reset when moving to another light source that is not covered by any of the settings in the two white balance memories.
2. When the white balance is reset, the previous setting in the corresponding memory is erased.
3. When two different white balance settings have been stored in the memories, moving between two light sources is easily accomplished by simply changing the White Balance Selection Switch (28) on the camera or (126) or (180) on the RCU to the position matching the light source.
 Recording is not interrupted when the white balance memory is switched.
4. If the camera has not been used for a long period of time, the white balance (as well as the black balance) should be reset before recording is begun.
5. Allow a few minutes of warm-up time before setting the white balance. This will allow a higher degree of precision when making the adjustment.
6. The white balance may not be correctly set under the following conditions:
 ** In low light situations
 ** In extremely bright light situations
7. If recording is to be carried out under sunlight, the white balance setting should be performed against a white surface exposed to the sun to avoid colour distortion. Please note that if the white balance has been set in this manner, a slight colour distortion might appear when turning the camera towards the Shade

3. Filter Selection Wheel Settings

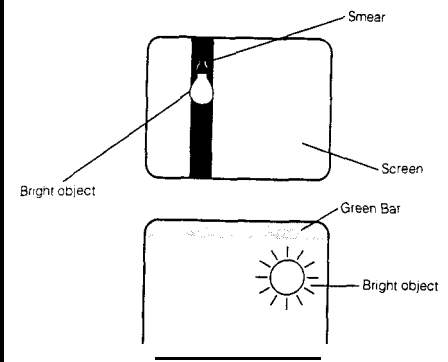
-- Select the filter according to the light source at the scene.

	Object/Scene & Light Source Condition	Colour Temperature	Wheel NO.
Indoor	Halogen Lamp or Tungsten (Studio)	3200K	1
	Fluorescent (White)	4500K	3
	Fluorescent Lamp (Daylight)	6500K	3
Outdoor	Fluorescent Lamp (Daylight)	6500K	3
	Daylight (Sunny)	4500K	2
	Cloudy	7000-7500K	3

PECULIAR PHENOMENA OF THE CCD

1. Vertical Smear

When the camera is aimed at a scene which contains excessively bright objects such as the sun, lamp or reflected light under the electronic shutter mode, vertical bars called Smear may appear below the bright object in the picture.



2. Fixed Pattern Noise

Fixed pattern noise may be seen in the entire picture area when the operating temperature of the camera is high.

3. Horizontal Lines Under Electronic Shutter Mode

When an extremely bright object is in the picture under the electronic shutter operation, green horizontal bar or lines may be obtained as shown in figure

4. White blemish

When a white blemish appears in the picture when the camera is operating in high temperatures, do not use this camera in the +18 dB high gain mode

USER SETTING PROCEDURE

This camera is provided with 3 menus: Main, Sub Scena Files 1, 2, 3, User A. User B.
The level in these menus are preset at the factory
An initial setting can be set for all scene files and can be changed from a preset condition to a desired one

How to display the Main Menu

- 1 Set the Scene File Selection Switch (10) or (131)/(184) of RCU (RCB) to the position 1, 2 or 3.
The scene file number is displayed in the viewfinder for a few seconds as SCENE1, SCENE2 or SCENE3.
- 2 Set the User Set Switch (16) in the side cover to the position 1.
The Main Menu is displayed in the viewfinder

Note: By Setting this switch to the position 2, the display to the monitor screen is available
The camera is now in the Main Menu Setting mode.

3. By repeated pressing of the Page Switch (13) of the camera or (136)/(191) of the RCU (RCB), the Main Menu can be displayed in the viewfinder or on the monitor screen.
4. By pressing the Item Switch (14) of the camera or (135)/(190) of RCU (RCB), the cursor is moved to the various Items in the menu. The item identified by the cursor can have its level set or changed at this point
- 5 Change of the mode or level is made by use of the Up (15)/Down (16) Switch of the camera

Main Menus are shown in the following.

■ Camera

SCENE1 STUDIO		SCENE2 ENG		SCENE3 LOW LIGHT	
→ CONTRAST	MID	→ LIGHTING	HALOGEN	→ CONTRAST	MID
SHARPNESS	MID	CONTRAST	MID	SHARPNESS	MID
FLESH TONE	0	SHARPNESS	MID	FLESH TONE	0
CHROMA GAIN	0	FLESH TONE	0	CHROMA GAIN	0
PEAK/AVG P	I A	CHROMA GAIN	0	PEAK/AVG P	I A
AREA	TOP CUT	PEAK/AVG P	I A	AREA	TOP CUT
#CLEAN DNR	(OFF)	AREA	TOP CUT	#CLEAN DNR	(OFF)
		#CLEAN DNR	(OFF)		
SUB MENU		SUB MENU		SUB MENU	

■ RCU (RCB)

SCENE1 STUDIO		SCENE2 ENG		SCENE3 LOW LIGHT	
→ CONTRAST	MID	→ LIGHTING	HALOGEN	→ CONTRAST	MID
SHARPNESS	MID	CONTRAST	MID	SHARPNESS	MID
FLESH TONE	0	SHARPNESS	MID	FLESH TONE	0
CHROMA GAIN	0	FLESH TONE	0	CHROMA GAIN	0
PEAK/AVG P	I A	CHROMA GAIN	0	PEAK/AVG P	I A
AREA	TOP CUT	PEAK/AVG P	I A	AREA	TOP CUT
#CLEAN DNR	OFF	AREA	TOP CUT	#CLEAN DNR	OFF
		#CLEAN DNR	OFF		
SUB MENU		SUB MENU		SUB MENU	

How to display the Sub-Menu

To display the Sub-menu, set the Scene File Selection Switch (10) or (131)/(164) of RCU (RCE) to the position 1, 2 or 3, move the cursor to the SUB MENU and press the Page Switch (13)

The Sub Menu is displayed in the viewfinder

By setting the User Set Switch to the position 2, this menu is also displayed on the monitor screen

This menu is provided with No.1 - No.4 Sub Menus.

By Pressing the Page Switch, the screen is changed

Sub Menus are shown in the following.

**Camera

SUB MENU (IRIS.SHTR.GAIN)		SUB MENU (COLOUR)		SUB MENU (EVF.G/L.BAR)		SUB MENU (DTL.COMP)	
NO.1		NO.2		NO.3		NO.4	
→ #AUTO IRIS	ADJ ON	→ #HL CHROMA	(OFF)	→ #ZEBRA LEVEL	95%	→ #I NOISE SUP	OFF
#SHUTTER SW	ACTIVE	#PAINTING	OFF	#SAFETY ZONE	1	#CORNER DTL	OFF
#SHUTTER MODE	STEP	# R GAIN	+ I -	#CENTRE MARK	ON	#PRECISION DTL	OFF
#STEP	1/100	# B GAIN	+ I -	#CALENDAR	ON	#2D LFF	ON
#SYNCHRO	60.5HZ	# R PED	+ I -	#EVF OUT	Y	#BLACK SHD	ON
#FLD/FRM	FIELD	# B PED	+ I -	#R PHASE	+ I -	#WHITE SHD	OFF
#GAIN SW	0/9/18DB	#AWC B/ATW	AWC B	#SC COARSE	Y		
#NIGHT EYE	HI	#CAM SET-UP	MID	#SC FINE	+ I -		
RET		RET		RET		RET	

**RCU (RCB)

SUB MENU (IRIS.SHTR.GAIN)		SUB MENU (COLOUR)		SUB MENU (EVF.G/L.BAR)		SUB MENU (DTL.COMP)	
NO.1		NO.2		NO.3		NO.4	
→ #AUTO IRIS	ADJ ON	→ #HL CHROMA	OFF	→ #ZEBRA LEVEL	95%	→ #I NOISE SUP	OFF
#SHUTTER SW	ACTIVE	#PAINTING	OFF	#SAFETY ZONE	1	#CORNER DTL	OFF
#SHUTTER MODE	(STEP)	# R GAIN	(+ I -)	#CENTRE MARK	ON	#PRECISION DTL	OFF
#STEP	(1/100)	# B GAIN	(+ I -)	#CALENDAR	ON	#2D LFF	ON
#SYNCHRO	60.5HZ	# R PED	(+ I -)	#EVF OUT	Y	#BLACK SHD	ON
#FLD/FRM	FIELD	# B PED	(+ I -)	#R PHASE	(+ I -)	#WHITE SHD	OFF
#GAIN SW	0/9/18DB	#AWC B/ATW	---	#SC COARSE	(00)		
#NIGHT EYE	(HI)	#CAM SET-UP	MID	#SC FINE	(+ I -)		
RET		RET		RET		RET	

USER SETTING

After setting the scene File Selection Switch (10) of the camera or (131)/(164) of RCU (RCB) to the USER SET position, the camera operating condition can be changed by the user to the desired condition

How to set the User Set Menu

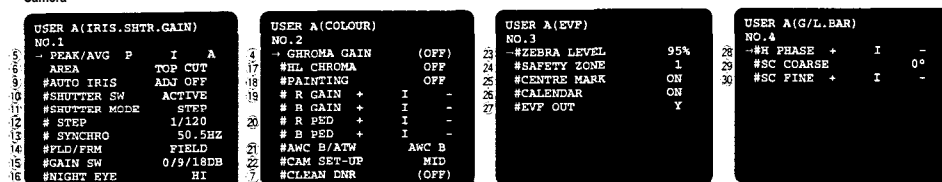
- Set the Scene File Selection Switch (10) of the camera or (131)/(164) of the RCU to the USER position.

Notes:

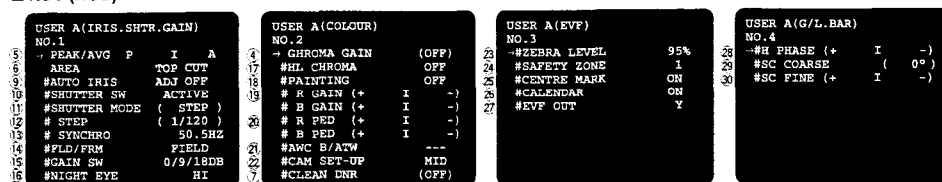
- The selection of USER A and USER B can be made by setting the Scene File Selection Switch

User Set Menus are shown in the following.

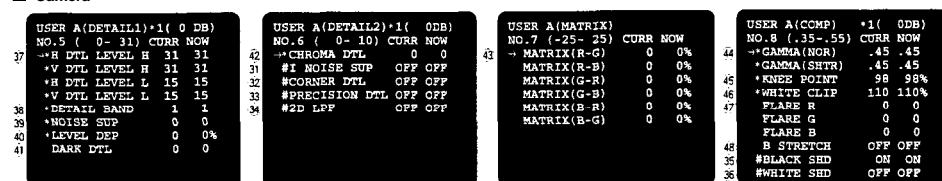
** Camera



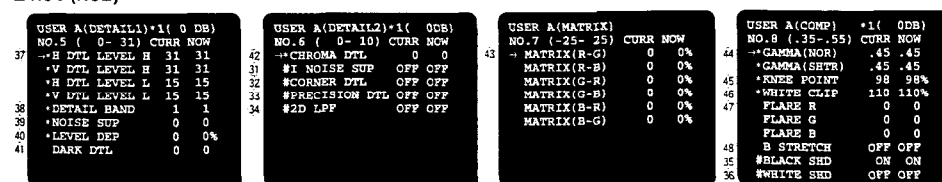
■ RCU (RCB)



■ Camera



■ RCU (RCB)



Menu Description

- CONTRAST (LOW, MID, HI) (Contrast Level Setting)**
The Contrast (gamma) level can be selected
- SHARPNESS (LOW, MID, HI) (Sharpness Level Setting)**
The sharpness (detail) level can be selected.
- FLESH TONE (-2 - 2) (Flesh Tone Setting)**
Flesh tone can be adjusted from -2 to 2 range in 5-step
- CHROMA GAIN (-2 - 2) (Chroma Gain Setting)**
The chroma gain can be selected from -2 to 2 range in 5-step.
- PEAKING (Operating ratio Adjustment)**
The ratio of AUTO IRIS/ELC detected peak to average can be adjusted in a range of 9 steps
- AREA: ALL, CENTRE, TOP CUT, BOT CUT, R/L CUT (Photometric Measurement Method Setting)**
A photometric measurement method can be selected for AUTO IRIS/ELC
ALL: All the screen area is measured
CENTRE: The screen is measured mainly in the centre area, approx. one-third each of the top and bottom and one third each of the right and left parts of the screen are cut out from measurement.
TOP CUT: Approx. one-third of the top part of the screen is cut out from measurement
BOT CUT: Approx. one-third of the bottom part of the screen is cut out from measurement
FUL CUT: Approx. one-third each of the right and left parts of the screen is cut out from measurement.
- CLEAN DNR, OFF/LOW/HI**
(Clean DNR (Digital Noise Reduction Switch))
The SIN ratio on the screen can be improved by this switch.
Note: When the camera is operating alone, this function can be made by the DNR Switch inside the camera
In this case, the display in the menu shows the set switch condition
- LIGHTING: HALOGEN/FLUORESCENT/OUTDOOR (Lighting Selection) (Only Scene 2)**
HALOGEN: This position is suitable for shooting under halogen lighting.
FLUORESCENT: This position is suitable for shooting under fluorescent lighting
OUTDOOR: This position is suitable for shooting under outdoor lighting

After the setting is completed, set the User Set Switch to the OFF position

9. AUTO IRIS: ADJ ON/ADJ OFF

(Auto Iris Level Fine Adjustment)

When the mode is set to ADJ ON, fine adjustment of ALC/ELC convergence level can be made with the iris VR control on the RCU (RCB) if the camera is used with an RCU (RCB) and the iris mode is set to AUTO in the SETUP menu.

10. SHUTTER SW, ACTIVE, INHIBIT

(Shutter Active Inhibit Selection Switch)

When the INHIBIT position is selected, shutter function is not available even if the Shutter On/Off Switch is turned on

11. SHUTTER MODE, STEP/SYNCHRO/ELC (Shutter Mode Setting)

STEP: Select this mode to set the shutter speed by the Step mode shutter setting

SYNCHRO: Select this mode for the fine adjustment of the shutter speed

ELC: Select this mode to control the electronic shutter speed automatically to regulate the amount of light.

12. STEP, 1/120, 2/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (Step Mode Shutter Setting)

When the Shutter Mode Setting is set to STEP, the shutter speed should be selected by this item

13. SYNCHRO, 50.0 - 250.4 Hz

(Synchro Mode Shutter Adjustment)

When the Shutter Mode Setting is set to SYNCHRO, the shutter speed can be adjusted by this item.

This mode can prevent the line noise when shooting the CRT display

14. FLD/FRM, FIELD/FRAME (Field/Frame Setting)

The FIELD means CCD field storage. The FRAME means frame storage, in which case vertical resolution increases

FIELD: Set to this mode when shooting moving object

FRAME 1: Set to this mode when shooting still object

FRAME 2: Set to this mode when better resolution is required

Note: It is recommended that FRAME is normally selected, because the residual image will increase if field is selected

15. GAIN SW, 0/9/18, 0/12/24, 0/3/6, -6/0/12, -6/0/16dB (Gain Setting)

The HIGH/MID/LOW level of the High Gain Selection Switch can be set as shown below

HIGH	MID	LOW
18 dB	9 dB	0 dB
24 dB	12 dB	0 dB
12 dB	6 dB	0 dB
6 dB	3 dB	0 dB
12 dB	0 dB	-6 dB
6 dB	0 dB	-6 dB

16. NIGHT EYE, LOW/HI (Night Eye Setting)

The gain level of Night Eye mode can be selected

17. HL CHROMA, OFF/LOW/HI (High Light Chroma Setting)

This is used to add chroma signal to highly saturated colour for expanding dynamic range.

18. PAINTING, OFF/ON (Painting Setting)

If white balance is set to either AWC A or AWC B when the painting switch is turned on, fine adjustment of white balance can be made either AWC setting by red/blue gain control

Fine adjustment of black balance after ABC setting can also be made by red/blue pedestal adjustment

When setting this switch to the OFF position, the fine adjustment of white balance is not available

19. R GAIN (Red Gain Adjustment)

B GAIN (Blue Gain Adjustment)

Fine adjustment of white balance can be made after AWC setting by red/blue gain control when the white balance setting is set to AWC A or AWC B and the painting mode is ON

Note: A memory is provided for each of AWC A and AWC B.

If AWC setting is executed when the camera is used alone, the memories for AWC A and AWC B are reset.

20. R PED (Red Pedestal Adjustment)

B PED (Blue Pedestal Adjustment)

Fine adjustment of black balance can also be made after ABC setting by red/blue pedestal adjustment when the painting mode is turned on.

Note: If ABC is executed when the camera is used alone, the value of R/B PED returns to the centre

21. AWC B/ATW (Automatic White balance Control B/Automatic Tracing White balance Control Setting)

When operating the camera alone, AWC B or ATW can be selected.

With the RCU operation, this setting can be made by the Auto/ATW Selection Switch.

When connecting with RCU or RCB, select the AWC B or ATW by the AUTO/ATW Switch on the RCU.

22. CAM SET-UP, LOW/MID/HI (Camera Set-up Level Setting)

The Set-up level of the camera can be selected.

When the Total Pedestal Level Control (23) is set to the centre position

LOW position is selected, the set-up level is approx. 0 IRE.

MID position is selected, the set-up level is approx. 7.5 IRE.

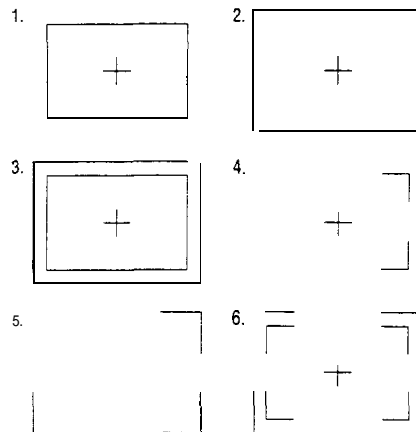
HIGH position is selected, the set-up level is approx. 10 IRE.

23. ZEBRA, 50-110% (Zebra Level Setting)

The video signal level that causes the zebra pattern to be displayed can be selected from 50% to 110%.

24. SAFETY ZONE, 1-6 (Safety Zone Setting)

6 patterns as shown below are provided for the safety zone display.



Notes:

1. The Inside frame Safety Zone is 90% and the outside frame Safety Zone is 95%.
2. The marker shows the electronic centre of the picture and might not coincide with the optical centre of the picture.

25. CENTRE MARK, ON/OFF

(Centre Mark On/Off Setting)

The centre mark can be turned on or off

26. CALENDAR, ON/OFF (Calendar On/Off Setting)

The display of the calendar, time and date on the colour bar can be turned on or off

27. EVF OUT, Y, NAM

(Electronic Viewfinder Output Signal Setting)

The video output signal to the viewfinder can be selected from Luminance Signal (Y) or Non Additive Mixing (NAM) signal

The colour bar signal can be also output with Non Additive Mixing Signal (NAM) when selecting the NAM.

28. H PHASE (Horizontal Phase Adjustment)

The horizontal phase, when in the gen-lock mode can be adjusted

29. SC COARSE (Sub carrier Coarse Adjustment)

The sub carrier phase when in the gen-lock mode can be adjusted.

30. SC FINE (Sub carrier Fine Adjustment)

The sub carrier phase when in the gen-lock mode can be adjusted fine.

31. I NOISE SUP, OFF/LOW/HI

(I Signal Suppression On/Off Setting)

Noise of the I axis on the vector can be suppressed.

32. CORNER DTL, ON/OFF

(Corner Detail On/Off Setting)

By setting to the ON position, the corner detail of picture is improved when the Detail Level Selection Switch (20) is set to the LOW or HIGH position

33. PRECISION DTL, ON/OFF

(Precision Detail On/Off Setting)

When setting to On, the frequency band in the detail signal narrows.

34. 2D LPF, ON/OFF

(Two-dimensional Low Pass Filter On/Off Setting)

This is used to reduce the cross colour on the picture.

35. BLACK SHD, ON/OFF

(Black Shading On/Off Setting)

The black shading compensation mode can be turned ON or OFF.

36. WHITE SHD, ON/OFF

(White Shading On/Off Setting)

The white shading compensation mode can be turned on or off.

37. H. DTL LEVEL H

(Horizontal Detail High Level Setting)

V. DTL LEVEL H (Vertical Detail High Level Setting)

H. DTL LEVEL L

(Horizontal Detail Low Level Setting)

V. DTL LEVEL L (Vertical Detail Low Level Setting)

The Horizontal/Vertical Detail Level in the HIGH or LOW position can be set.

The setting level range of the vertical direction is from 0 to 63

Note: The setting value of the Level High should be set higher than the level Low

38. DTL BAND, 1-5 (Detail Band Selection Switch)

The frequency band in the detail and the 'thickness' of the detail can be selected

The selectable range is from 1 to 5

1 is Low Band and 5 is High Band

39. NOISE SUP, 0-10

(Noise Suppress Compensation Level Setting)

When setting the Detail Level Selection Switch Inside the camera to the HIGH or LOW position, noise component can be reduced.

Note: When setting level is too high, the sharpness of the object is reduced.

40. LEVEL DEP, 0-25%

(Level Dependent Compensation Level Setting)

Picture noise caused by the detail signal in dark scene areas can be reduced

41. DARK DTL, 0-5 (Dark Detail Level Setting)

The dark detail level can be set from 0 to 15

Note: When setting this level, the Level Dependent Compensation Level should be set to 0

42. CHROMA DTL, 0-15

(Chroma Aperture Compensation Level Setting)

The detail of objects in a high chroma content scene can be adjusted

43. MATRIX (Matrix Compensation Setting)

The adjustment of Matrix Compensation is available (R-G) The tints of red and magenta can be adjusted (R-B) The tints of red and yellow can be adjusted (G-R) The tints of green and cyan can be adjusted (G-B) The yellow green tints can be adjusted (B-R) The tints of blue and cyan can be adjusted (B-G) Purple tint can be adjusted

44. GAMMA (NOR) 35-55 / GAMMA (SHT) 35-55

(Gamma Compensation Level Setting)

In the Electronic Shutter Off mode, the level of GAMMA (NOR) can be set from 0.35 to 0.55

In the Electronic Shutter On mode, the level of GAMMA (SHT) can be set from 0.35 to 0.55

45. KNEE POINT, 88% - 98%

(Knee Compensation Level Setting)

The knee point level can be set from 88% to 98%

46. WHITE CLIP, 95% - 110% (White Clip Level Setting)

The White Clip Level can be set from 95% to 110%

47. FLARE (Flare Compensation Setting)

The adjustment of Flare Compensation is available

RED: The flare compensation of red is adjustable

GREEN: The flare compensation of green is adjustable

BLUE: The flare compensation of blue is adjustable

Note: This level is preset at the factory

48. B-STRETCH, ON/OFF

(Black Stretch On/Off Setting)

To emphasize details in dark area, Black Stretch On mode should be set

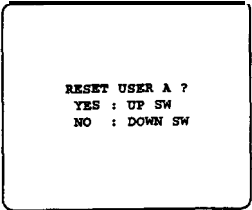
Note: When this is set to the Black Stretch On mode the gamma on/off setting is not available

Reset of the setting data

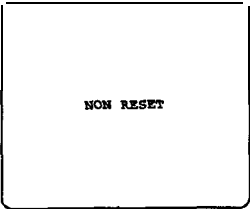
To reset the menus to the condition preset at the factory, a reset function is provided with this camera

How to Reset

- 1. Select menu to reset.
 - 2. Turn off the power of the camera once
 - 3. Turn on the power of the camera while pressing the Page Switch (13) of the camera
- The following reset screen is displayed in the viewfinder or monitor



Note: To cancel the reset, press the Down Switch before pressing Up Switch
When the Down or Up Switch is not pressed, the reset is canceled automatically



- 4. Press the Up Switch (15)
- The following display is indicated and the setting conditions is reset.



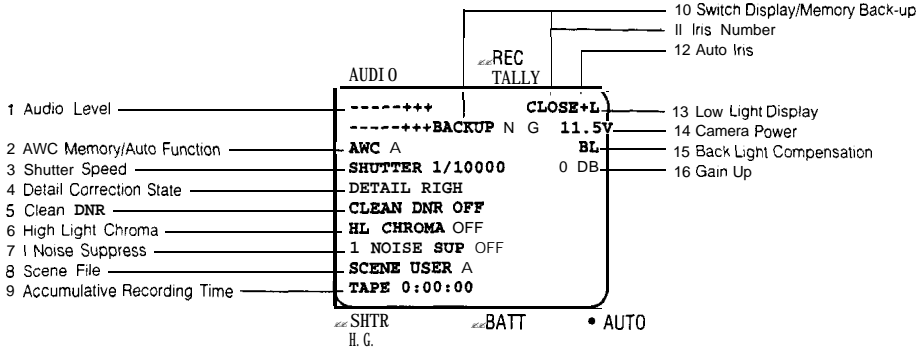
CHARACTER DISPLAY

The following operation & warning displays are shown in the viewfinder to show the Operating conditions of the camera

Notes:

- 1. The displays of the viewfinder are not recorded.
- 2. The displays are not shown while a playback picture is on the viewfinder screen

* Display Positions



• Timing of Displays

The viewfinder displays appear in the viewfinder as stated below:

NO	Display	Displayed all the time	Displayed in short intervals only when the condition changes	Displayed only when the Check Button (25) is pressed
1	Audio Level	O	x	0
2	AWC Memory/Auto Function	x	0	0
3	Shutter Speed	x	0	3
4	Detail Correction State	x	0	0
5	Clean DNA	x	0	O
6	High Light Chroma	x	0	0
7	Noise Suppress	x	0	0
8	Scene File	x	O	c
9	Accumulative Recording Time	X	X	0
10	Switch Display	x	0	0
	Memory Back-up	*0	x	0
11	Iris Number	O	x	0
12	Auto Iris	0	x	O
13	Low Light Display	0	x	3
14	Camera Power	0	x	5
15	Back Light Compensation	O	x	0
16	Gain Up	x	0	0

* This display appears only when the memory back-up battery has any failure

1. Audio Level Display

The audio output level from the camera or the playback audio level of the 3/4"U-VISION or 1/2" S-VHS VTR is displayed by minus 0 and +plus 0 letters with the ONE-step (One step equals to 3dB)

Note: By pressing the Check Switch on the camera, this display is also made.

Display	Audio level
	Low Level
- -	
- - -	
- - - -	
- - - - -	Standard Level
-----+	
- - - - - + +	High Level

2. AWC Memory/Auto Function Display

2-1. When the White Balance Selection Switch (26) setting is changed, one of the following displays appears for one second

Display	Description
AWC A	The White Balance Selection Switch has been set to AWC A. The automatic white balance control memorized in A is being activated
AWC B	The White Balance Selection Switch has been set to AWC B. The automatic white balance control memorized in B is being activated.
ATW	The White Balance Selection Switch has been set to AWC Band. AWC B/ATW of the No.2 Sub-menu has been set to ATW. The Auto Tracing White Balance is being activated
AWCPSET	The White Balance Selection Switch has been set to PRESET. This camera is in the preset condition (Colour temperature is 3200° K).

Note: By pressing the Check Button (25) on the camera, this display is also made

2-2. Auto Function Display

Automatic white Balance Control (AWC)

If the following displays are shown in the viewfinder, the AWC can not be functioned.

Set the Auto White/Auto Black Set Switch (6) on the camera or (127)/(176) on the RCU to the AWC position

Display	Display Time	Auto Warning Indicator	Cause	Remedy
HIGH LIGHT	2 seconds	ON	Excessive bright light	Reduce lighting on object or reduce lens iris. Reset the white balance.
AWCPSET	2 seconds	ON	White Balance Selection Switch is set to PRESET	Set this switch to AWC A or AWC B
LOW LIGHT	2 seconds	ON	Insufficient Light	Prepare an additional light source. Reset the white balance
AWC NG	2 seconds	ON	Out of white balance setting range	Change the object or filter
ATW	2 seconds	-	ATW operation	Set this switch to the AWC A or AWC B
-		-	Colour Bar/Night Eye/Camera Selection Switch (27) on the camera or (121) on the RCU is set to BAR	Set the Colour Bar/Night Eye/Camera Selection Switch to CAMERA
AWC A	2 seconds	Blinking	White balance is being set.	The White Balance Selection Switch has been to AWC A.
AWC B	2 seconds	Blinking	White balance is being set.	The White Balance Selection Switch has been to AWC B
AWC A/AWC B OK	2 second	OFF	White balance setting is completed.	The White Balance Selection Switch has been to AWC A.

2-3. Automatic Black Balance Control (ABC)

When the Auto White/Auto Black Set Switch (6) on the camera or (127)/(176) on the RCU is set to the ABC position, the black balance is automatically set. Refer to 'Setting the Black Balance' on page 56 for details.

Display	Display Time	Auto Warning Indicator	Cause	Remedy
LENS OPEN	2 seconds	ON	Lens iris is not closed	Check the lens connector.
ABC NG (RGB)	2 seconds	ON	Out of the black balance setting range	Refer to the qualified service personnel.
ABC	2 seconds	Blinking	Black balance is being set	
ABC OK	1 second	OFF	Black balance setting is completed.	

3. Shutter Speed Display

One of the following displays appears for one second when the position of the Electronic Shutter On/Off Switch (II) is changed

Display	Shutter/High Gain Indicator (LED)	Description
SHUTTER OFF	OFF	The Electronic Shutter On/Off Switch is set to OFF. Normal camera operation.
SHUTTER 1/120	ON	Camera is set to electronic shutter mode with shutter speed of 1/120 seconds.
SHUTTER 1/1250	ON	Camera is set to electronic shutter mode with shutter speed of 1/250 seconds
SHUTTER 1/500	ON	Camera is set to electronic shutter mode with shutter speed of 1/500 seconds
SHUTTER 1/1000	ON	Camera is set to electronic shutter mode with shutter speed of 1/1000 seconds
SHUTTER 1/2000	ON	Camera is set to electronic shutter mode with shutter speed of 1/2000 seconds
SHUTTER 1/4000	ON	Camera is set to electronic shutter mode with shutter speed of 1/4000 seconds
SHUTTER 1/10000	ON	Camera is set to electronic Shutter mode with shutter speed of 1/10000 seconds
SYNCHRO SCAN	ON	Camera is set to the Synchro Scan mode
ELC	ON	The Electronic Light Control is being activated

4. Detail Correction State

The detail/aperture correction state is displayed for one second when the setting of the Detail Level Selection Switch (20) is changed

Note: The detail/aperture correction state is also displayed when the Check Button (25) is pressed.

Display	Position of the Detail Level Selection Switch (20)
DETAIL OFF	OFF
DETAIL LOW	LOW
DETAIL HIGH	HIGH

The above displays are indicated by previewing the Check Button (25)

5. Clean DNR Display

The clean DNR state is displayed for one second when the position of the Clean DNA Selection Switch (17)

Display	Position of the Clean DNR Selection Switch
CLEAN DNR	OFF
CLEAN DNR LOW	LOW
CLEAN DNR HIGH	HIGH

6. High-light Chroma Display

The high-light chroma state is displayed for one second when the High Light Chroma Switch is pressed.

Note: When the Remote Control Unit is used, the OFF, LOW or HIGH can be selected on the menu.

Display	Position of High Light Chroma Switch
---------	--------------------------------------

HL CHROMA OFF

HL CHROMA ON (LOW position had been set in the No 2

HL CHROMA ON (HIGH position had been set in the No 2

The above displays are indicated by pressing the Check Button (25)

7. Noise Suppress Display

The Noise Suppress state is displayed for one second when the item Noise Suppress Switch is pressed in the menu off mode

Note: These selections can be made by the menu

Display	Position of Item / Noise Suppress Switch
NOISE SUP OFF	OFF
NOISE SUP LOW	LOW
NOISE SUP HIGH	HIGH

Note: The above displays are indicated by pressing the Check Button (25)

6. Scene File Display

The scene file setting is changed or Check Button (25) is pressed, the following display appears for one second

SCENE 1 STUDIO: Scene File Selection Switch had been set to SCENE 1

SCENE 2 ENG: Scene File Selection Switch had been set to SCENE 2 and LIGHTING in No 1 Main Menu is set to HALOGEN

SCENE 3 OUTDOOR: Scene File Selection Switch had been set to SCENE 2 and LIGHTING in No 1 Main Menu is set to FLUORESCENT

SCENE USER A: Scene file condition is under the User A state

SCENE USER B: Scene file condition is under the user B state

9. Accumulative Recording Time Display

White the Check Button (25) is pressed, the accumulative recording time is displayed during ENG/EFP operation.

When a camera/recorder system utilizes an AU-45H, the tape counter is displayed instead of accumulative recording time.

Notes:

- The display value is reset to 0 HOUR 00 MIN 00 SEC (0:00:00) by either the Recording Time Reset Button (21) on the camera or the Reset button on the VTR
- The maximum recording time that can be displayed is 7 HOURS 59 MIN 59 SEC (7:59:59). If the recording time should exceed this value, the display will start counting again from 0:00:00

10. Switch Display/Back-up Battery State Display

When the back-up battery for white balance and black balance memories, as well as the character display, has a low charge 'BACK UP NG' is displayed Replace the back-up battery immediately

When pressing the switches on the front or side of the camera, the switch "ame pressed ca" be displayed in the viewfinder as shown below

Notes:

- Refer replacement of the back-up battery to qualified service personnel
- The back-up battery will supply power for approximately 10 years

Display	Description
GAIN	High Gain Selection Switch (29) is pressed.
WHITE BAL	White Balance Selection Switch (28) is pressed.
BAR/N EYE/ CAMERA	Colour Bar/Night Eye/Camera Selection Switch (27) is pressed.
AUTO W/B	Auto White/Auto Black Set Switch (6) is pressed
LENS IRIS	Lens Iris Selection Switch (7) is pressed
NONE	Back-up can not be operated
BACK-UP NG	Back-up can not be operated

11. Lens Aperture Display

The lens aperture/iris is adjusted automatically according to the incoming light intensity. The F-number, i.e. aperture/iris opening is displayed in the viewfinder when a specified zoom lens, with a 12-pin lens connector is used

Display
OPEN
F2
F2.8
F4
F5.6
F8
F11
F16
CLOSE

Note: If the F-number displayed differs from the actual F-number in use, refer adjustment to qualified service personnel

12. Lens Iris Selection Display

The setting of the Lens Iris Selection Switch (7) is displayed.

Display	Description
+	The Lens Iris Selection Switch (7) is set to 1/2 OPEN. The lens iris is opened an extra 1/2 F-stop from the standard lens iris/aperture
no display	The Lens Iris Selection Switch (7) is set to NOR (normal) Lens iris/aperture is normal.
	The Lens Iris Selection Switch (7) is set to 1/2 CLOSE. The lens iris is closed an extra 1/2 F-stop from the standard lens iris/aperture.

13. Low Light Display

When the peak level of the incoming light results in a video signal of 40 IRE or less, 'L' is displayed constantly. The Auto White Balance Control (AWC) is not available when the 'L' is displayed.

Display	Description
None	The peak level of incoming light generates 40 IRE or more
L	The peak level of incoming light generates 40 IRE or less

14. Camera Power and Anton Bauer Intelligent Digital Battery

The voltage level supplied to the camera, from the Battery Pack, AC Adaptor/Charger or VTR is displayed.

Display	LED (orange)	Present Voltage Level
HIGH (blinking)	OFF	17V or more
17V	OFF	Approx. 17V
16V	OFF	Approx 16V
15V	OFF	Approx. 15V
14V	OFF	Approx. 14V
13V	OFF	Approx 13V
12V	OFF	Approx 12V
11.5V	OFF	Approx 11.5V
11V	OFF	Approx 11V
10.8V	OFF	Approx 10.8V
10.6V	OFF	Approx 10.6V
BATT	Blinking	10.6V or less

Note: If 'BATT' is displayed, replace the battery pack. The battery pack will supply sufficient power for only a few minutes after this display lights.

This is also indicated when the Check Button (25) is pressed.

The batteries condition can be monitored when using the MII VTR AU-45H with Anton Bauer Intelligent Digital Battery.

Remove the Left Side Cover and set the Battery Indication Switch to the ANTON position.

The remaining battery life is indicated as shown below.

Display	LED (orange)	Present Voltage Level
MAX	OFF	Full charge condition
90%	OFF	Remaining 90%
80%	OFF	Remaining 80%
70%	OFF	Remaining 70%
60%	OFF	Remaining 60%
50%	OFF	Remaining 50%
40%	OFF	Remaining 40%
30%	OFF	Remaining 30%
20%	OFF	Remaining 20%
10%	OFF	Remaining 10%
EMP	Blinking	No remaining

Caution: Do not use the camera with 'HIGH' display.

15. Back Light Compensation Display

When the back light compensation state is displayed for one second when this switch is turned on.

None	Off mode
BL	On mode

16. High Gain Selection Display

When the setting of the High Gain Selection Switch (29) on the camera (119) or (174) on the Remote Control Unit is changed, this is indicated in the viewfinder for one second.

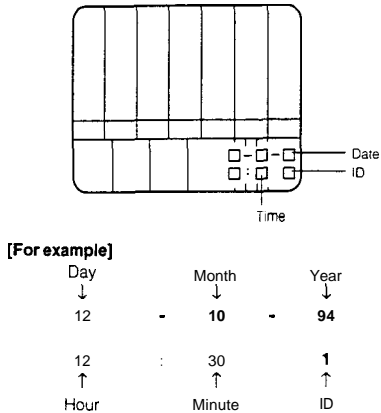
Display	LED (orange)	Gain Level
-6 dB	OFF	below -6 dB
0 dB	ON	below 0 dB
3 dB	ON	below 3 dB
6 dB	ON	below 6 dB
9 dB	OFF	below 9 dB
12 dB	ON	below 12 dB
18 dB	ON	below 18 dB
24 dB	ON	below 24 dB
N.E. (L)	ON	Night Eye (LOW)
N.E. (H)	ON	Night Eye (HIGH)

DATE/TIME DISPLAY

DISPLAY

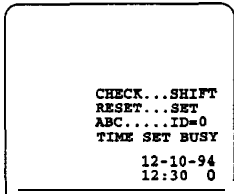
- The date/time is displayed and can be recorded together with the colour bar signal by setting the Colour Bar/Night Eye/Camera Selection Switch to the BAR position.
- Menu, calendar, date and camera identificaion are not displayed on the screen

DISPLAY POSITION



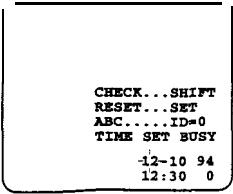
DATE/TIME SETTING PROCEDURE

- Set the Colour Bar/Night Eye/Camera Selection Switch (27) to the BAR position to show the date and time
- While pressing the Check Button (25), press the Auto White/Auto Black Set Switch (6) to the AWC position and then release the Check Button (25) in order to shift to the time setting mode as shown in the figure



CAUTION: Release the Check Button (25) after pressing the Auto White/Auto Black Set Switch (6) to the AWC position. If the Check Button is kept pressed, the camera will not be shifted to the time setting mode

- After releasing the **Check** Button (25), press the Check Button once again within 10 seconds to cause the 'Date' section to blink

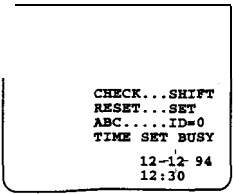


CAUTION: If the Check Button (25) has not been pressed within 10 seconds and no character is blinking, the time setting mode will be reset to normal display mode

- To increase the 'Month', press the Recording Time Reset Button (21)

-10- → -11- → -12-

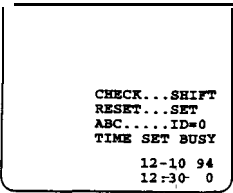
- For fast increment mode, keep pressing the Recording Time Reset Button (21).



- After setting the correct 'Month', press the Check Button (25) to set the 'Day'. The 'Day' characters start to blink

-12- → -13- → -14-

- Press the Recording Time Reset Button (21) to change the 'Day'
- After setting the correct 'Day', press the Check Button (25).
- For setting the 'Year' and 'Hour', follow the same procedure used for the 'Month' or 'Day'
- For Setting the 'Minute', press the Check Button (25) after setting the 'Hour'



- Press the Recording Time Reset Button (21) to change the 'Minute'

-30- → -31- → -32-

- If it is desired to set the 'Second' wait for the Time tone from a radio, etc, (the 'Minute' section is blinking). As soon as the tone at the Time is heard, press the Check Button (25)

The clock starts running and the character 'TIME SET END' will be displayed for 1 second and then the display mode will be changed to the normal display mode.

Notes:

- The date and time (clock) will be powered by the back-up battery even if the camera is turned off.
- The back-up battery lasts approximately 10 years
- The accuracy of displayed date and Time (clock) is approximately +60 seconds per month

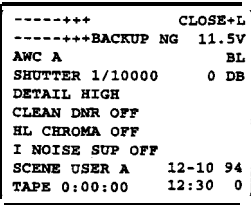
ID SETTING

The setting of 0-9 and blank at the ID position is available

By each pressing down of the Auto Black/Auto White Set Switch (6) toward the ABC position when in the data/time Setting mode, the ID setting is advanced.

CAMERA STATUS DISPLAY

The camera status can be recorded together with the colour bar signal and the Date/Time character by keeping the Check Button (25) pressed while the Colour Bar/Night Eye/Camera Selection Switch (27) is set to the BAR position



SPECIFICATIONS

Pick-up System:	Middle Index prism system (F. 1.4)
Image Sensor:	Three 1/2" frame interline transfer (FIT) super high sensitivity CCD's
Pixels:	771 (Horizontal) x 582 (Vertical)
Scanning Standard:	625 lines, 50 fields, 25 frames
Synchronizing System:	Internal or external (gen-lock), automatically switchable
Internal:	PAL standard
External (gen-lock) Input:	PAL composite (VBS) signal or black burst signal
Subcarrier Phase for Gen-lock:	Freely adjustable over 360°
Horizontal Phase for Gen-lock:	Adjustable
Video Output:	1.0 V [p-p] PAL composite / 75 Ohm. x2 2 (BNC connector) Y/C (S-VIDEO) Output: 0.7 V [p-p] Luminance level (Y) composite / 75 Ohm. x 1 (S-VIDEO connector) 0.3 V [p-p] burst level chrominance / 75 Ohm. x 1 (S-VIDEO connector) 1.0 V [p-p] NTSC composite / 75 Ohm. x 1 (26 pin VTR/RCU connector) (R/G/B, Y/PB (B-Y) / PR(R-Y), Y/C/B. ENC. Switchable R/G/B 0.7 V [p-p] 75 Ohm. x 1 each Y/PB/PR Y, 1.0 V [p-p] (Sync 0.3 V [p-p] 75 Ohm. x 1 PB/PR 0 525 V [p-p] / 75 Ohm. (at full colour bar) x 1 each Y/C/B Y 0.7 V [p-p] Luminance level (Y) Composite 75 Ohm. x 1 C 0.3 V [p-p] burst level chrominance / 75 Ohm. x 1 B 0.7 V [p-p] / 75 Ohm. x 1 ENC PAL. 1.0 [p-p] composite / 75 Ohm. x 1 1.0 V [p-p] composite 75 Ohm. R through 26 pin VTR/RCU connector -20 dBm or -60 dBm/unbalanced, switchable (26 pin VTR/RCU connector) 2000 Lux at F6.0. 3200K 0.5 lux at F1.4 with Night Eye High mode, more than 70% output level 63 dB (typical, luminance) without aperture correction, DNR HIGH 650 lines (Y signal) Hi Band DTL ON 0 05% (entire picture area, excluding lens) Horizontal and vertical (2-line type) Automatic white balance setting (AWC with two memories) and PRESET, white balance, ATW Automatic with pulse canceller Y, R-Y, B-Y Built-In full colour bar generator with time, date generator and camera ID 1/120 s. 1/250 s. 1/500 s. 1/1000 s. 1/2000 s. 1/4000 s. 1/10000 s. synchro-scan. ELC 3200K, 5600K with 6 25% ND, 5600K 26 pin Studio Cable Max 300m
Auxiliary Input:	
Audio Output:	
Illumination Required:	
Minimum Illumination:	
Signal-to Noise Ratio:	
Horizontal Resolution (at centre):	
Registration:	
Detail / Aperture:	
White Balance:	
Black Balance:	
Encoder:	
Colour Bar:	
Electronic Shutter:	
Colour Conversion Filters:	
Maximum Cable Length:	
Switches:	
Camera:	Power, Colour Bar/N.E./Camera Selectoon. Hgh Gaon Selectoon. Whote Balance Selection. Auto White/Auto Black Set. Level Indicator Zone. VTR Start/Stop. Check. Lens iris Selection. Detaill Level Selection. High / light CHROMA. Recording Time Reset. Electronic Shutter On / Off. Back Light Comp., Scene File Selection. Page. Item. Up. Down VTR Compatibility, Audio Level Selection. Earphone Out Selection. VTR Video Output Selection 1, VTR Video Output Selection 2. Power Selection Tally ON / OFF
Camera Adaptor:	Servo/Manual Zoom Selection, Servo Zoom Control. Iris Control Selection Auto Iris. Return Video. Macro VTR Start/Stop
Viewfinder:	
Zoom Lens (14x Lens):	

Controls:	
Camera:	Total Pedestal. Lens Iris. Audio (with AU-45H)
Camera Adaptor:	Earphone/Intercom Level
Viewfinder:	Brightness. Contrast Peaking
Standard Lens (14x Lens):	1.4 auto iris servo conrol zoom lens. 7,3 - 102 mm with macro mode. F1.4 (7,3 mm) F1,6 (102mm) Automatic or manual
Lens iris:	Bayonet mount for 1/2" pickup device
Lens Mount:	82 mm P=0,75 (with food). 72 mm P=0,75 (with lens)
Lens Filter Size:	1,5" (1,3/8" actual Image size) electronic viewfinder with character display safety zone. Date/Time and zebra level indicator
Viewfinder:	12 v DC, 5 sources as follows. (1) Battery Pack (2) AC Adaptor (3) External DC source through 4-pin DC connector (4) VTR (external AC adaptor) (5) Remote Control Unit through VTR/RCU connector
Power Source:	Camera Head: (12V DC) 11,4 W ENG Configuration: (12V DC), 16 Ohm. (with AW-AD500AE. WV-VF42) Studio Configuration: (12V DC), 25,6W (with AW-AD500AE. WV-VF42) -10°C - +45°C (C50° F 113°F) 30% - 90%
Power Consumption:	
Ambient Operating Temperature:	
Ambient Operating Humidity:	
Dimensions:	
**Camera Head Only:	134 (W) x 244 5 (H) x 267 (D) mm 5-1/4"(W) x 9-5/8"(H) x 11-3/16"(D)
**ENG Configuration:	266 5 (W) x 283 (H) x 460 (D) mm
(Exclude the Tripod Mounting Adaptor)	9-9/16"(W) x11-1/8"(H) x 18-1/8" (D)
**Studio Configuration	161 (W)x521 (H)x531 (D)mm
(Exclude the Tripod Mounting Adaptor)	7-1/8"(W) x 20-1/2"(H) x 20-7/8" (D)
Weight:	
**Camera Head only	2,4 kg (5,3 lbs)
**ENG Configuration	5,3 kg (11,6 lbs)
(Exclude the Tripod Mounting Adaptor)	
**Studio Configuration	7,6 kg (16,7 lbs.)
(Exclude the Tripod Mounting Adaptor)	
Finish.	Black painting (Munsell N1 or equivalent)

Dimensions and weights are approximate
Specifications are subject to change without notice

SYSTEM ACCESSORIES

ENG/EPF kit WV-S550A	
1,5" viewfinder WF-VF42.....	1 set
Microphone Holder WV-MH500.....	1 set
Tripod Mounting Adaptor WV-QT700.....	1 set
Carrying Case WV-CC500A.....	1 set

MAIN OPTIONAL ACCESSORIES

Camera Adaptor	AW-AD500AE/AW-AD500BSE	Gun-type Electret Condenser Microphone	WM-L30
AC Adaptor/Charger	WV-PS34	Lens Control Kit	WV-LK35/WV-LK36
Battery Adaptor	WV-BA71 (for AU-BP402)	Tripod Mounting Adaptor	WV-QT700
Carrying Case	WV-CC500A	RCU Rack Mount Frame	WV-Q70
Computer Interface Adaptor	WJ-PC500	5" Viewfinder Bracket	W-Q71
1,5" Electronic Viewfinder	WV-VF42	Shoulder Strap	WV-QB70
5" Electronic Viewfinder	WVVF65B	Microphone Holder	WV-MH500
Remote Control Unit (RCU)	WV-RC700A/WV-RC550		
Remote Control Box (RCB)	WVCB700A		

OTHER OPTIONAL ACCESSORIES

VTR Cable,	
WV-CA26A14 (26P-14P)	3m (10 ft)
WV-CA26A26 (26P-26P)	3 m (10 ft)
Joint Connector	
WV-CA26T26	
26/32 Conversion Cable	
WV-CA26T32	
32/26 Conversion Cable	
WV-CA32T26	
Studio Cable:	
WV-CA26U15	15m
WV-CA26U30	30 m
WV-CA26U100	100m
RCB Cable	
WV-CA10B2	2 m
WV-CA10B25	25 m
WV-CA10B50	50 m